

GOVERNMENT OF THE PHILIPPINE ISLANDS  
DEPARTMENT OF PUBLIC INSTRUCTION  
PHILIPPINE HEALTH SERVICE

# REPORT OF THE PHILIPPINE HEALTH SERVICE

FOR THE FISCAL YEAR FROM JANUARY 1  
TO DECEMBER 31, 1922

VICENTE DE JESÚS, M. D.  
DIRECTOR OF HEALTH

MANILA  
BUREAU OF PRINTING  
1923



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## ERRATA

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Page 10.—The heading “3. Achievements during 1922” was left out above “(a) Anti-smallpox vaccination” and that “(g) Disposal of excreta” under that heading should be in the same vertical line as “(f) Laboratories.”

Page 55.—At the top of the page, there should be the heading “Prevailing Diseases.”

Page 64.—*Inspection* instead of *Inspect*.

Page 118.—“Food Inspection” should be a main heading and not a subheading of “Public Health Nursing.”

Page 119 and 125.—“Board of Masseurs” and “Activities of the International Health Board, etc.,” respectively, should also be main headings.

Page 131.—“Administrative Division” is a subheading of “San Lazaro Hospital.”

Page 199.—“Iwahig General Hospital,” is a subheading of “Iwahig Penal Colony.”

# ANNUAL REPORT OF THE PHILIPPINE HEALTH SERVICE, FISCAL YEAR 1922

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DEPARTMENT OF PUBLIC INSTRUCTION  
PHILIPPINE HEALTH SERVICE

MANILA, *February 28, 1923*

SIR: I have the honor to submit herewith the résumé of the annual report of the Philippine Health Service for the year 1922.

## THE YEAR IN BRIEF

Substantial decreases in the general mortality and in infant mortality rates constituted the salient points of the year. The work on leprosy investigation was expanded by more liberal appropriation and by the detailing of expert technical personnel at Culion and at San Lazaro Hospital; the vaccination campaigns for the eradication of smallpox, cholera, and typhoid were continued and conducted in an intensive and systematic manner; and with the coöperation of the Rockefeller Foundation, malaria and hookworm surveys were effected, resulting in a decided practical contribution to public health conservation. Special investigations were also conducted in different provinces with a view to eradicate yaws and tropical ulcers. The greatest achievements of the year, however, were attained in the suppression of epidemics and in keeping up and raising the morale of health officials resulting in greater individual activity and efficiency, and a higher conception and better comprehension of their duties and responsibilities.

Compared with the figures for 1921, notable reductions in the general mortality and infant mortality rates have been accomplished in 1922, viz., from 21.22 to 18.94 per 1,000 population in the case of the general mortality, and from 170.46 to 154.94 per 1,000 births in the case of infant mortality. The reductions in this regard have resulted, undoubtedly, from: (a) suppression of epidemics (see epidemiology); (b) slow but gradual control of preventable disease through effective health measures and

permanent sanitary improvements; and (c) improvement of individual health through health education and publicity, and the subsequent awakening of the sanitary conscience of the people at large.

### EPIDEMIOLOGY

No epidemics of dangerous communicable diseases occurred during the year. Sporadic cases of cholera, dysentery, smallpox, and typhoid were reported, however, in the three territorial divisions of this Service, as follows:

TABLE I.—*Number of cases and deaths during 1922*

Divisions	Smallpox		Cholera		Typhoid fever		Dysentery	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
City of Manila .....			76	<sup>a</sup> 24	1,295	<sup>a</sup> 402	250	<sup>a</sup> 146
Provinces .....	128	12	89	48	2,545	1,886	12,537	7,387
Mindanao-Sulu .....		7				41		380
Totals .....		19		72		2,329		7,913

<sup>a</sup> Including transients.

As compared with the figures for the last five years, the incidence and mortality during 1922 from the above diseases certainly show a great decrease. In the provinces, the reduction in the mortality curve was quite remarkable, especially in those of cholera and smallpox. The decrease can best be appreciated by a study of the tables given below:

TABLE II.—*Number of deaths:*

#### (a) CITY OF MANILA

Years	Smallpox	Cholera	Typhoid fever	Dysentery
1917 .....	2	8	216	312
1918 .....	989	123	224	759
1919 .....	55	352	216	443
1920 .....	5	3	230	294
1921 .....		23	239	60
1922 <sup>a</sup> .....		24	402	146

<sup>a</sup> Including transients.

#### (b) PROVINCES INCLUDING MINDANAO-SULU

Years	Smallpox	Cholera	Typhoid fever	Dysentery
1917 .....	434	8,715	3,334	8,998
1918 .....	15,158	5,787	4,171	10,601
1919 .....	49,916	17,805	3,594	19,311
1920 .....	7,100	119	2,491	8,746
1921 .....	719	30	2,136	9,217
1922 .....	19	48	1,927	7,767

## SANITATION IN THE CITY OF MANILA

## 1. VITAL STATISTICS

(a) Population, 1922.....	299,754
Population, 1921 .....	295,626
(b) Births, 1922.....	13,092
Birth rate per 1,000 inhabitants.....	43.68
(c) Deaths, 1921.....	7,537
Deaths, 1922.....	7,221
Death rate per 1,000 inhabitants, 1921.....	25.49
Death rate per 1,000 inhabitants, 1922.....	24.09
(d) Infant mortality:	
Deaths, infants under 1 year, 1921.....	2,871
Deaths, infants under 1 year, 1922.....	2,543
Net decrement.....	560
Infant mortality rate per 1,000 births, 1921.....	205.52
Infant mortality rate per 1,000 births, 1922.....	194.24

## 2. EPIDEMIOLOGY

(a) *Cholera*.—Most of the cases occurred in January (63 cases, 24 deaths). The rest of the cases occurred between February and August.

The infection during 1922 was a continuation of the infection of the previous year.

The usual routinary measures were instituted, viz., detection, hospitalization, isolation of carriers, and disinfection of premises. In addition and as a supplementary measure, 303,612 anti-cholera vaccinations were given to 203,004 people for prophylactic purposes. The last two measures, vaccination and isolation of carriers, proved to be the most effective means for controlling cholera infection.

(b) *Dysentery*.—The incidence from this disease has steadily decreased since 1918.

(c) *Smallpox*.—No case of smallpox occurred in Manila during 1921 and 1922.

(d) *Typhoid fever*.—The incidence of this disease has been in general on the increase since 1917. For the purpose of scientific investigation and to the end that proper remedial measures may be instituted, a typhoid investigation committee was appointed, which, after three months' work, submitted recommendations along the following lines:

(1) Improvements in the existing services for waste and refuse disposal, and water supply systems.

(2) Strict sanitary supervision of food factories and establishments, and of the personnel thereof.

(3) Isolation, follow-up, and control of carriers.

(4) Prompt notification of the cases and improvement of diagnostic methods.

(5) Complete individual vaccinations.

In addition to the above, hospital isolation of cases and carriers, detection and disinfection of carriers were instituted as usual.

A total of 243,768 pure anti-typhoid and mixed "typhoid and cholera" vaccinations were performed on 138,432 persons. Mixed typhoid and cholera inoculations amounted to 160,054.

A seasonal increase of typhoid incidence has been noted, the same occurring in the month of March. The lowest incidence was observed in December.

With the above measures in continuous operation and a large portion of the population (46.18 per cent) duly immunized against typhoid, the prospects for 1923 appear promising.

(e) *Diphtheria*.—As a result of the measures adopted for its control, the incidence of diphtheria has gradually decreased since 1917. The average incidence for the last five years was 62 cases. The decrement of the cases from the average of five years, amounted to 32.25 per cent.

(f) *Encephalitis lethargica*.—The existence of this disease in the City of Manila has been confirmed. A total of 32 cases with 8 deaths occurred during December. Myoclonic types seemed more frequent than the lethargic cases. Proper measures are being taken to prevent the spread.

(g) *Rabies*.—Among 153 persons reported as having been bitten by supposedly rabid dogs, 152 of whom were subjected to Pasteur treatment, three developed symptoms of the disease. The two permanent resident cases who died were bitten while in the provinces. Both received the treatment, but in one, the treatment was given too late, and in the other, the set of injections was not given complete. The third case was a transient resident. He was brought from San Pedro, Laguna, to Manila with symptoms of Hydrophobia and died in San Lazaro Hospital. One hundred fifty-one suspected dogs were examined but none proved positive.

(h) *Influenza*.—Sporadic cases of this malady occurred during the year resulting in 39 deaths among the residents and 14 among the transients. Nothing remarkable was noted in this connection, except the apparent higher case fatality (20.70 per cent) in sporadic cases as compared with that in times of epidemic (3.05 per cent).

## 3. MISCELLANEOUS HEALTH WORK

(a) *Rat extermination*.—Although no local cases of plague occurred since 1914, the work of extermination of rats nevertheless proceeded as usual. A total of 81,630 rats were caught and sent to the Bureau of Science for plague examination. None proved positive. In this connection, mention must be made of the positive human case of plague discovered on June 4th, originating from Amoy, China, where the disease was prevalent at the time. The patient landed in Manila on June 1st, fell ill on the morning of June 3, and died before midnight on June 4. Stringent measures were taken to prevent the spread of infection. As a result, no further cases occurred.

(b) *Mosquito eradication*.—No departure from the plan adopted in 1921 was made. In all, 12,273 houses with mosquito breeding places were found; mosquito infested premises, 11,102; breeding places oiled on public properties, 123,238; lineal feet of drains ordered dug, 1,640; square feet of grass ordered cut, 1,846; drums of oil used, 273.

(c) *Fly extermination*.—No departure from measures adopted in previous years was made. A total of 1,910 stables were inspected; stables ordered cleaned, 1,020. In addition, refuse dumps in different sections of the city were disinfected.

(d) *Medical relief*.—Patients treated in health stations gave a total of 9,618; house visits, 20,539.

(e) *Physical examination*.—A total of 1,171 examinations were performed on civil service applicants and employees.

(f) *Water supply*.—The work in this connection consisted in: (1) daily biological examination of samples from the Metropolitan Water District; (2) analyses of water of artesian wells and of the water supply in public establishments, such as hotels, tiendas, saloons, and schools.

## 4. ACHIEVEMENTS DURING 1922

(a) Prohibition against serving a drinking water in "sari-sari" tiendas.

(b) Increased portions of population immunized against cholera and typhoid fever.

(c) Prohibition against hand-scraping of the ice served in refreshment establishments, and adoption of safe hand-machines for the purpose.

(d) Decreased areas of lowlands by filling up.

(e) Decrement of the general death rate from 25.49 per 1,000 inhabitants as occurred in 1921 to 24.09 for the year, and of the

infant mortality rate from 205.52 to 194.24. These alone constitute in themselves a health achievement of no little importance.

## SANITATION IN THE PROVINCES

### 1. VITAL STATISTICS

	Estimate 1922 <sup>a</sup>	Average 1917-1921
Population .....	9,055,940	8,627,599
Births .....	338,540	304,528
Marriages .....	61,267	80,878
Deaths .....	182,406	234,894
Infant mortality .....	51,946	64,015
Birth rate .....	37.38	35.30
Marriage rate .....	13.53	18.75
Death rate.....	20.14	27.22
Infant mortality rate.....	153.44	210.21

<sup>a</sup> Reports of several provinces are not yet on hand.

### 2. EPIDEMIOLOGY

	Deaths
(a) Cholera mortality—average from 1917-1921.....	6,156
Cholera during 1922..... 89 cases....	48
(b) Dysentery mortality—average 1917-1921.....	11,299
Dysentery during 1922..... 12,537 cases....	7,387
(c) Smallpox mortality—1917-1921.....	16,021
Smallpox during 1922..... 128 cases....	12
(d) Typhoid fever mortality—1917-1921.....	2,909
Typhoid during 1922..... 2,545 cases....	1,886

### 3. ACHIEVEMENTS DURING 1922

#### (a) Anti-smallpox vaccination:

Total number of vaccinations.....	1,900,704
Total number of inspections.....	1,384,910
Total number of positives.....	846,532
Total number of negatives.....	538,378

#### (b) Anti-typhoid vaccination:

Total number of adults vaccinated.....	22,642
Total number of children vaccinated.....	13,364
Total .....	36,006

#### (c) Anti-cholera vaccination:

Adults, total vaccinated.....	151,051
Children, total vaccinated.....	109,099
Total .....	260,150

#### (d) Mixed (typhoid and cholera) vaccination:

Adults, total vaccination.....	129,012
Children, total vaccination.....	84,022
Total .....	213,034



(e) *Provincial and municipal health organizations:*

(1) The location and up-keep of offices were greatly improved, the records and files standardized as well as their equipment and supplies.

(2) Dispensaries in most of the municipalities were given suitable location, and steps taken to standardize the equipment and work done therein.

(3) *Personnel.*—The morale of health officials was raised to a still higher level, resulting in greater individual activity and efficiency, and in the development of a higher regard for duties and responsibilities.

(f) *Disease eradication:*

(1) Outbreaks of dangerous communicable diseases were invariably nipped in the bud. Cholera, smallpox, and typhoid fever were placed under effective control. Dysentery is decreasing.

(2) As a result of suppressive and preventive measures, including vaccination, the incidence of preventible diseases declined in a remarkable manner with a consequent lowering of the general mortality and infant mortality rates.

(g) *Health education:*

Topics of lectures by provincial health officials were standardized and a fixed calendar instituted.

## SANITATION IN MINDANAO AND SULU

### 1. VITAL STATISTICS

	1922	1921
Population .....	1,191,655	1,106,159
Births .....	17,692	16,639
Deaths .....	10,098	9,053
Deaths under one year.....	2,736	<sup>a</sup> 2,295
Birth rate per 1,000 population.....	14.85	15.04
Death rate per 1,000 population.....	8.47	8.18
Infant mortality rate per 1,000 births..	154.65	<sup>b</sup> 140.58

<sup>a</sup> Excluding Province of Lanao.

<sup>b</sup> Based on the births of provinces concerned.

### 2. EPIDEMIOLOGY

(a) *Cholera.*—No cases of true Asiatic cholera occurred.

(b) *Dysentery.*—Despite the falling off of the incidence and mortality rates, the disease continues to be a great problem.

(c) *Smallpox.*—For the last five years, the disease had constantly occurred, especially in the provinces of Bukidnon and

Misamis. Thanks to the intensive vaccination campaign, undertaken, the disease was placed under control in January. Since then, the division was cleared of smallpox. The seven deaths reported, occurred during the first week of the year amongst cases that developed in the latter part of 1921.

(d) *Typhoid fever*.—Under control. Deaths reduced from 66 as reported last year to 41.

(e) *Influenza*.—Sporadic cases still occur; mild in character, occurring mostly at the change of monsoons.

(a) *Anti-smallpox vaccinations:*

Total vaccinations .....	108,449
Total positives .....	39,134
Total negatives .....	33,456
Percentage of positives .....	53.91

(b) *Typho-chol, vaccinations*—(Mixed typhoid and cholera):

Total vaccinations .....	27,704
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(c) *Dispensary service:*

Total cases .....	91,486
Total treatments .....	203,538

(d) *Hospitals:*

Total number in operation .....	9
Total admissions .....	5,892
Total discharged .....	5,339
Total died .....	224

(e) *Training School for Nurses:*

Total enrollment .....	29
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(f) *Laboratories:*

Total examinations made .....	6,064
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(g) *Disposal of excreta*.—The use of Antipolo closets is becoming generalized. Construction of a sewerage system is planned for Zamboanga.

In order to obviate misunderstanding and misinterpretation of facts included in previous Annual Reports of this Service, it is essential to remember the history of two christian provinces in the Island of Mindanao. The Provinces of Misamis and Surigao were, up to the year 1918, included in the Division of Provincial Sanitation. From that time up to 1922, they were incorporated under the Division of Mindanao and Sulu, when, from the latter date, they were again annexed to the Division of Provincial Sanitation. This is significant to keep in mind, for, by it, the discrepancies in the statistical figures given by the Director of Health and those by the Chiefs of the Divisions of Provincial Sanitation and of Mindanao and Sulu, may be obviously explained and justified.

## ACTIVITIES OF THE ROCKEFELLER FOUNDATION

The activities of the International Health Board of the Rockefeller Foundation in the Philippine Islands during 1922 extended over a period of nine months. During this time, the efforts of the board were exerted in the direction of improving nursing education, demonstrating more recent methods of malaria control, and in an attempt to define the hookworm problem in these Islands.

*Nursing.*—A school for public health nursing was established through the efforts of Miss Alice Fitzgerald, of the staff of the Rockefeller Foundation. The school graduated its first class of 30 nurses in January, 1923. It was through the efforts of the Philippine Health Service that the establishment of the school for public nursing was made possible. Financial support for the school in the amount of ₱25,000 was made available through a readjustment of certain items of the Service budget for 1922.

*Malaria control work.*—After a preliminary investigation of the whole province, field surveys were ultimately concentrated in four representative localities of Laguna, and experimental works conducted at Los Baños. The medical side of the investigation was undertaken by Dr. R. G. Padua of the Philippine Health Service, while its engineering and entomological aspects were entrusted to the hands of Mr. W. D. Tiedeman of the Rockefeller Foundation.

Blood smears were taken and the splenic and parasitic indices determined. As a result of the investigation, an average of 62.15 per cent among 2,267 persons examined, had enlarged spleen and 7.94 per cent were parasite-positive. Of 14 autopsies performed in various places of the province, 35.71 per cent were deaths due to malaria; but the rest, although due to various other causes, yet likewise showed traces of post-malarial lesions.

Mosquito breeding experiments as well as the classification of the anopheles fauna within the zones of investigation were conducted. Various methods of larva destruction were tried out, *i. e.*, with larvicides and larva-eating fishes (top minnows), and larva-eating larvæ.

Similar investigation was made in Iwahig Penal Colony, Palawan, by Dr. R. G. Padua. As a result, of 1,228 colonists examined, 48.78 per cent were found to have splenic enlargements and 15.06 per cent were active malaria carriers.

To say the least, much was gained from these investigations, for, the interest of the people in control measures has been aroused and greater care in diagnosis exercised to an extent not hitherto accomplished at normal times.

*Intestinal survey.*—The immediate objective is to define the incidence of intestinal parasites in these Islands. Work carried on in Bilibid Prison showed an incidence of 90 per cent for hookworm alone. Later, surveys were made in various towns of Cebu, showing an incidence range from 40 to 83 per cent. After organizing the hookworm campaign in Cebu, the work was turned over to the Philippine Health Service, and through the efforts of this Service the work has expanded very rapidly until at present over 10,000 cases received free treatment. A cheap and effective remedy was introduced in the use of carbon tetrachloride at a cost of about two centavos a dose.

Taytay is being resurveyed to check up the work of older investigators. From 100 specimens, an incidence of 40 per cent was obtained. This would indicate that there has been a general underestimate in the first.

*Scholarships.*—The Foundation has sent five scholars to the United States for advanced graduate study in public health, nursing, and medicine. Two men have been sent from the Philippine Health Service, one from the Medical School of the University of the Philippines and two nurses from the Philippine General Hospital.

#### COUNCIL OF HYGIENE

During the year, fourteen meetings in all were held, three regular and eleven special. Action has been taken upon the following: Proposed law on chiropractic; proposed sanitary code; amendments in the existing law regulating the practice of medicine in the Philippine Islands; subvention of the City of Manila for health work during 1922; enforcement of sanitary ordinances and regulations in Manila; preparation and rating of examination papers for entrance and promotion of commissioned officers of the Philippine Health Service; investigation of the method of treatment given to lepers at San Lazaro Hospital and Culion Leper Colony; Quebral's influenza cure; inspection of aerated-water factories; study and report on small-pox epidemic of 1918-1919 and general vaccination in the Philippines.

#### PUBLIC HEALTH NURSING

The staff has had such varied assignments as the following: six nurses detailed with the Typhoid Investigation Committee;

one detailed in Ilocos Norte for yaws duty; another at Iloilo to represent the Service at the Carnival held there in April; one nurse was detailed with the malaria survey in Laguna Province; another at Iwahig Penal Colony; and the rest for other duties. In view of these special assignments, the routine work of the office was much crippled. Notwithstanding the above, much practical work has been accomplished as may be seen on the partial summary of work given below:

1. Prospective mothers given instruction on sanitation.....	1,915
2. Prospective mothers given instruction and demonstration on care of babies.....	7,598
3. Mothers and babies referred to clinics.....	2,103
4. Babies under tikitiki treatment as prophylactic.....	1,725
5. Babies under tikitiki treatment as curative.....	373
6. Tikitiki bottles issued.....	5,298
7. Birth registrations .....	4,140
8. Vaccinations .....	3,035
9. Breastfed babies visited .....	6,582
10. Artificially fed babies visited.....	772

#### FOOD INSPECTION

Fines imposed for violation of Food and Drugs Act; and food stuffs condemned and destroyed during the year ending December 31, 1922:

Articles examined	Number of samples
Malt liquors, wines, whisky, etc.....	39
Milks .....	26
Aërated water.....	632
Foods .....	1,136
Drinking water.....	615
<b>Total .....</b>	<b>2,448</b>

For violation of Food and Drugs Act: Total fines, ₱676.50.

Articles condemned or destroyed	Quantity	Unit	Unit price	Value
Sardines.....	1,381	Cases..	₱10.56	₱14,583.36
Pilchards (Anchovies).....	485	...do...	3.00	1,455.00
Libby's Spinach.....	165	...do...	16.80	2,762.00
Libby's Cabbage.....	54	...do...	16.80	907.20
Chocolates.....	21	Tins...	.50	10.50
Biscuits.....	1,008	...do...	.85	856.80
Breads.....	649	Leaves..	.05	32.45
Cakes.....	240	...do...	.01	2.40
California Grapes.....	615	Kegs...	12.00	7,380.00
Hams.....	2	Cases...	108.00	216.00
Chickens.....	1	Number	1.20	1.20
Articles used for handling foods.....	2	...do...	.50	1.00
<b>Total value.....</b>				<b>28,207.91</b>

#### SCHOOL FOR SANITARY INSPECTORS AT MANILA

Toward the end of the month of June, announcements were issued in the press of the opening of the school for the train-

ing of sanitary inspectors. Examinations for entrance were held on July 5 and July 13, 1922, wherein 339 applicants participated. From this number 25 were selected, basing selection upon their marks in the competitive examinations and upon previous training and experience. The great majority of those selected were high-school students and graduates. The classes were begun on August 1, 1922. The curriculum approved by the Governor-General and Secretary of Public Instruction included the following subjects: anatomy and physiology, 30 hours; medical zoölogy, 60 hours; sanitary engineering, 30 hours; bacteriology, 30 hours; vital statistics and epidemiology, 60 hours; English, 40 hours; Spanish, 20 hours; industrial hygiene, 10 hours; general sanitation, 30 hours; child hygiene, 30 hours; social economics, 15 hours; publicity, 15 hours; organization and administration, 30 hours; household hygiene, 10 hours; finance, 15 hours, psychiatry and mental diseases, 15 hours; first aid, 10 hours; seminary, 10 hours.

The above curriculum was scheduled to cover from August 1 to December 15, 1922. From December 16, 1922, to January 31, 1923, the students were given practical field work in the different city health stations in Manila. The instructors were mainly medical officers of the Philippine Health Service. Four instructors were from the University of the Philippines, one from the National University, and one unattached.

Upon the recommendation of the Secretary of Public Instruction, the name of the school was changed from the "School of Public Health" to the "School for Sanitary Inspectors," Philippine Health Service.

Plans are under way to continue the school during the year 1923 and the years to come. The demand for properly trained inspectors is urgent, and only through the agency of this school could a sufficient supply be made to meet such demand.

#### HOSPITALS AND DISPENSARIES

At the close of the year, the Service had twenty-one hospitals in operation, nine in Mindanao and Sulu and twelve scattered in Luzon and the Visayan islands. This number certainly falls short of the actual needs of the population. The portion thereof reached through the existing relief agencies is much too small, probably no more than 40 per cent of the population. While it is realized that hospital relief is but a supplementary agency in public health administration, hospital facilities and service must needs be expanded to the end that its possibilities as a

factor in health conservation may be developed in full. In the past, lack of funds and perspective of possibilities have always hindered our attempts to increase the number of hospitals. Of late, however, the public mind has been aroused and the cry has spread all over the Islands for more institutions for medical relief. The time seems ripe for a full expansion of hospital service. As a matter of fact, bills are pending of action in the Legislature calling for appropriation of the necessary funds and the establishments of provincial hospitals. The prospects in this regard are therefore of the best.

#### MODERN TREATMENT OF LEPROSY

*San Lazaro*.—The different treatments that have been instituted for experimental purposes among a selected group of cases by the Committee on Leprosy Investigation were continued during the year with varied success. Of the 122 cases that were under treatment by the committee since its creation in May, 1920, 21 became negative, 51 improved, none became worse, 5 died from intercurrent diseases, and 45 sent to Culion for diverse reasons, the chief being to discongest the overcrowded quarters of the Leper Department. Sodium gynocardate was used on 24 cases, sodium morhuate on 15, chaulmoogra ethyl esters, with or without iodine on 55, Mercado mixture on 13 and E. C. C. O. on 15. No one preparation has been used exclusively on any determined group as was planned at the beginning, but mixed treatments have been found beneficial in most cases.

It has been observed that cases improved perceptibly with each one of the preparations employed up to a certain degree only and then became stationary until it was necessary to switch the treatment when progress became again evident. In other cases old tuberculous foci became active with the treatment, for which the latter had to be stopped.

*Culion*.—Through the interest of His Excellency, the Governor-General, and the encouragement received from the Legislature and the Emergency Board by more liberal allotments of funds, over 4,000 cases were placed under treatment at the end of the year by competent technical personnel. Tuberculosis has been the most frequent complication in the cases under treatment and a high mortality from this cause was registered during the year. A committee was, therefore, created to study this phase of the problem so as to eliminate it as a complication in the future.

## TREATMENT OF CHOLERA CARRIERS

The small epidemic of cholera at the beginning of the year was taken advantage of to institute an investigation into the relative merits of certain preparations which have been recommended in the treatment of carriers. This work was conducted at San Lazaro Hospital by Dr. Manuel V. Arguelles between January 9 and February 6.

The following preparations were tried:

- (1) Aromatic sulphuric, 15-20 drops t.i.d.
- (2) Buttermilk, ad libitum.
- (3) Nascent chlorine obtained by mixing potassium chlorate and hydrochloric acid.
- (4) Salol urotropin mixture.
- (5) Methylene blue in 0.10 capsules every hour till 10-15 are taken, followed by calomel.
- (6) Milk, by intramuscular injections.

The stools were examined every day for cholera vibrios. The carriers were hospitalized till 4 successful daily negatives were secured.

The results averaged as follows:

	Hospital days
(1) Methylene blue.....	4.57
(2) Milk .....	5.00
(3) Aromatic sulphuric.....	5.25
(4) Buttermilk .....	5.50
(5) Nascent chlorine.....	7.28
(6) Salol urotropin.....	16.65

## PLANS AND PROJECTS FOR 1923

1. Amendment to existing sanitary legislation to provide for: a uniform and fixed municipal and provincial contributions to the provincial health funds; a change of the existing procedure for the appointment of provincial health personnel; higher standards of entrance and promotional examinations for officers of the Philippine Health Service; standardization of salaries of the commissioned personnel; and amendment of regulations governing promotional selection of commissioned officers and of statutes referring to the employment of experts and specialists, with a view to enhancing the power of selection conferred upon the Director of Health and to lifting up of certain limitations which had hitherto become obsolete.

2. Expansion of hospital service in the provinces.

3. Extensive prophylactic vaccinations against smallpox, cholera, and typhoid to be continued.

4. Yaws campaign to be continued.



5. Hookworm surveys and malaria control work to be continued with the coöperation of the Rockefeller Foundation.

6. Expansion of venereal clinic service in Manila and extension thereof to such provinces as may require it.

7. Further researches to be made in the epidemiology and treatment of leprosy.

8. Six-month "refresher" courses in hospitals to be given regularly to such medical officers as are in need of them.

9. Standardization of dispensaries, and of simple remedy packages provided to towns having no dispensaries.

10. Standardization of offices,—files, records, furniture, and equipment.

11. Standardization of work of personnel,—field inspections and office work.

12. Health officers be required to keep a diary.

13. Establishment of circulating libraries at the offices of district health officers for the distribution of scientific literature and books to local health officers.

14. Educational campaign to be vigorously pushed along the same lines as those of last year, namely, through lectures, health-mobile, leaflets, etc.

15. Readjustment of certain provinces to increase the number of sanitary divisions or provide for a more logical aggrupation of municipalities.

16. Drives for more Antipolo closets and for better waste disposal to be instituted regularly.

17. Expansion of child hygiene work in provinces.

Very respectfully,

V. JESUS  
*Director of Health*

The Honorable  
The SECRETARY OF PUBLIC INSTRUCTION  
*Manila*

## COUNCIL OF HYGIENE

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FERNANDO CALDERON, M.D., *President*  
LEONCIO LOPEZ RIZAL, M.D., *Secretary*  
GERVASIO OCAMPO, M.D., *Member*  
JOSE ALBERT, M.D., *Member*  
BENITO VALDEZ, M.D., *Member*  
EULOGIO REVILLA, *Member*  
TOMAS EARNSHAW, *Member*

During the year of 1922, the Council of Hygiene held fourteen meetings in all—three regular and eleven special, among which, the following were included: A meeting held at the San Lazaro Hospital to investigate the present method of treatment given to the lepers confined in that hospital and in Culion Leper Colony; two inspections made on eleven aërated water factories to investigate the sanitary conditions thereof, and a meeting held together with the representatives of the different institutions concerned, to discuss the proposed law regulating the practice of medicine in the Philippines. As a résumé, the council acted upon the following:

1. Approval of the report submitted by the committee appointed to inform on the proposed law on kiropactic in the Philippines.
2. Submission and approval of the memorandum containing all the activities performed by the council during the year 1921. The Secretary was appointed to prepare the annual report of the council that was later submitted to the Director of Health.
3. A resolution recommending the Provincial Sanitary Code to the Fifth Medical and Pharmaceutical Assembly of the Philippines for its approval, was disregarded. A committee to study and introduce amendments on the said code, was appointed. This committee informed the council, after due study, that they found it unnecessary to introduce any amendment. Consequently, the proposed Provincial Sanitary Code was submitted to the Director of Health and favorably recommended for its enactment.
4. Discussion of the proposed law regulating the practice of medicine in the Philippines. Amendments were introduced by the Council of Hygiene.
5. A recommendation was made by this body to the Director of Health as to the best way of distributing the subvention expected from the City of Manila for health works for the year 1922, after due study of the subject by the members of the council.

Some of the various points which were recommended to the Director of Health were the following:

(a) Continuation of the yearly subvention of the City of Manila to the Philippine General Hospital.

(b) Establishment of Government free dispensaries.

(c) Campaign against mosquitoes, flies, and rats.

6. Recommendations made to the Director of Health with reference to various sanitary regulations, in order to prevent the outbreak of contagious diseases in the city, such as time for sweeping and sprinkling the streets in the city, cleaning of public toilets, muzzling of dogs, etc.

7. Preparation and rating of examination papers for entrance and promotion of medical officers in the Philippine Health Service.

8. Special meeting held at the San Lazaro Hospital to investigate the present method of treatment given to lepers confined in that institution and in Culion Leper Colony.

9. Discussion and report on the formula of Mr. Quebral to cure Influenza. Recommendations on this matter were:

1. That trial of this medicine by physicians who desire to use it in a hospital of the city be made, or

2. That the discoverer, Mr. Quebral, be given opportunity to make experiment of his medicine in a hospital of the city.

3. And that these experimentations be made under a strict clinical observation and a very reliable statistics in order to know the true value of this medicine.

10. The Council has inspected eleven aerated water factories of the city and found them in a very poor sanitary condition, with the exception of the Royal Aerated Water Factory which was found to be well-equipped and in an excellent sanitary condition. Most of the factories inspected were found to ignore the sanitary ordinances having relation with their business, as a result of which, the Council recommended to the Director of Health the advisability of ordering the strict compliance with the sanitary ordinances on aerated water factories.

11. A study was made and report submitted on the last smallpox epidemic of 1918-1919 and the general vaccination in the Philippines.

12. A joint meeting was held in the Colegio Médico-Farmacéutico Building to discuss the proposed law regulating the practice of medicine in the Philippines. In this meeting, the different institutions concerned and private physicians, as well, were heard. A committee composed of members of the different institutions represented in the meeting, was appointed to study and unify the different proposed laws into one which was to be submitted to the council for its approval.

#### COMMITTEES APPOINTED WITH REFERENCE TO THE VARIOUS ACTIVITIES OF THE COUNCIL

Drs. Ocampo and Valdez and Mr. Earnshaw: To study and submit a report on industrial legislation in the Philippines.

Dr. Albert: To submit a report on the proposed law on chiropractic in the Philippines.

Dr. Calderon: To confer with the Director of the Civil Service in relation with the preparation and rating of examination papers for entrance and promotion of medical officers in the Philippine Health Service.

Drs. Valdez and Ocampo: To study and submit a report on the supposed discovery of Mr. Quebral of a medicine to cure influenza.

Drs. Valdez and Ocampo: To study and introduce amendments in the Provincial Sanitary Code.

Drs. Valdez, Ocampo, Albert, and Lopez Rizal: Preparation and rating of examination papers for entrance and promotion of medical officers in the Philippine Health Service.

Drs. Albert and Lopez Rizal: Verify and submit a report on Smallpox and Vaccination in the Philippines with reference to the smallpox epidemic of 1918 in the Islands.

#### MISCELLANEOUS

Resignation of Hon. Luis Torres as member of the council and his substitution by Hon. Eulogio Revilla.

Departure of Dr. Jose Albert for the United States as member of the Second Independence Mission.

# REPORT OF THE DIVISION OF SANITATION CITY OF MANILA

[Dr. ANDRES CATANJAL, *Chief of the Division*]

## VITAL STATISTICS

### 1. POPULATION OF MANILA

On July 1, 1922, the population of Manila estimated in accordance with the arithmetical method was 299,754.

The population of Manila from 1917 to 1922, with annual increase, as per corrected population figures in the 1918 census, is shown in the following list:

Year	Population on July 1
1917 .....	279,114
1918 .....	283,242
1919 .....	287,370
1920 .....	291,498
1921 .....	295,626
1922 .....	299,754

The foregoing figures show that in the last five years an increase of 20,640 was obtained for the City of Manila.

### 2. BIRTHS AND BIRTH RATE

There were, during 1922, 13,092 births in Manila which number is greater than that of any of the five preceding years.

The actual birth rate per 1,000 for 1922 was 43.68. In the following table are stated the total number of births and the actual birth rate during the last six years, 1917 to 1922, inclusive:

Year	Number of births	Actual birth rate
1917 .....	8,883	31.82
1918 .....	9,083	32.06
1919 .....	10,029	34.89
1920 .....	12,614	43.27
1921 .....	12,261	41.47
1922 .....	13,092	43.68

The preceding table shows that from 1917 to 1922, with the exception of 1921, there was a constant annual increase of natality in Manila which means improvement of health in the population.

## 3. MARRIAGE AND MARRIAGE RATE

In 1922, there were 2,631 marriages in the City of Manila, with 17.55 as rate per 1,000 population.

The number of marriages from 1917 to 1922 are stated in the following tabulated list:

Years	Total number of marriages	Years	Total number of marriages
1917.....	2,285	1920.....	3,171
1918.....	2,615	1921.....	2,932
1919.....	3,053	1922.....	2,631

The foregoing figures show an increase in the number of marriages from 1917 to 1920, inclusive, and a gradual decrease in 1921 and 1922. Only the depression of the financial condition of the people in 1921 and 1922 can be considered as a reasonable explanation why people was less inclined to form new families.

## 4. GENERAL DEATH RATE

While the population of Manila has been steadily increasing during the last 5 years, 1917–1921, and there was a considerable increase of natality in 1922, there was an uninterrupted decrease of deaths from 1918 to 1922 as is plainly demonstrated in the table below. The efficiency of the preventive measures enforced by the Philippine Health Service, is no doubt the principal factor of such a steady decrease.

*Total number of deaths and death rate per 1,000 population in Manila from 1917 to 1922*

Years	Number of deaths	Death rate per 1,000
1917.....	6,682	23.94
1918.....	12,369	43.66
1919.....	7,814	27.19
1920.....	7,667	26.30
1921.....	7,537	25.49
1922.....	7,221	24.09

## 5. INFANT MORTALITY

The infant mortality rate in 1922 and the rates of the 5 preceding years, from 1917 to 1921, are stated in the following table:

Year	Rate per 1,000 births
1917 .....	275.47
1918 .....	397.56
1919 .....	224.95
1920 .....	213.02
1921 .....	205.52
1922 .....	194.24

## EPIDEMIOLOGY

## 1. CHOLERA

During the year 1922, there were seventy-six (76) cases of cholera in Manila, 24 of which were followed by death. Cholera in Manila in 1922 was the continuation of that of the preceding year, 1921. Of the total cases (76), seven (7) were transient residents, two of whom died.

The majority of the cases (63) occurred during January with 16 deaths.

During the following month, February, there were only 7 cases, 4 of which ended fatally.

From March to December, only sporadic cases occurred; 3 in March, 1 in April, 1 in July, and 1 in August.

Preventive and suppressive measures enforced to fight cholera in 1921, continued in force in 1922. These measures consisted in the isolation of patients and carriers in San Lazaro Hospital; repeated disinfection of infected houses and premises and the examination of specimens of feces from contacts to discover carriers.

Cholera injections to immunize the population of Manila against this disease, were performed. Pure anti-cholera vaccine was given to 203,004 persons and mixed typhoid and cholera vaccine to 160,054.

Compared with the previous five years, from 1917 to 1921, the year 1922 had more cases and deaths from cholera than in 1917, 1920, and 1921; but less than in 1918 and 1919. The following table proves this statement:

Cholera	1917	1918	1919	1920	1921	1922 <sup>a</sup>
Cases.....	25	182	861	24	59	76
Deaths.....	8	123	352	3	23	24
Fatality per 100 cases.....	32.00	69.58	40.88	12.50	38.98	31.58
Incidence per 1,000 population.....	0.089	0.642	2.996	0.082	0.19	0.25
Mortality per 1,000 population.....	0.028	0.434	1.225	0.010	0.07	0.08

<sup>a</sup> Including transients.

As the cholera of 1922 is the continuation of that of the preceding year, 1921, and the causes thereof were fully discussed in the report for 1921, we need not again discuss them here.

However, it must be stated, that the detection and subsequent isolation of cholera carriers and the immunization of the population proved to be the most effective measures to control its incidence.

The following tables show the total number of cholera injections made in Manila in 1922, by months and per health districts.

*Cholera immunization by month, 1922*

Months	Persons who received one injection		Persons who received two injections		Persons who received three injections		Total persons injected	Total injections
	Total persons	Total injections	Total persons	Total injections	Total persons	Total injections		
January.....	59,947	59,947	350	700	0	0	60,297	60,647
February.....	26,773	26,773	13	26	0	0	26,786	26,799
March.....	13,807	13,807	6,905	13,810	0	0	20,712	27,617
April.....	9,756	9,756	9,360	18,720	0	0	19,116	28,476
May.....	5,362	5,362	5,848	11,696	0	0	11,210	17,058
June.....	6,431	6,431	12,137	24,274	185	555	18,753	31,260
July.....	0	0	12,180	24,360	872	2,616	13,052	26,976
August.....	6,632	6,632	11,553	23,106	592	1,776	18,777	31,514
September.....	2,642	2,642	4,168	8,336	1,924	5,772	8,734	16,750
October.....	0	0	4,123	8,246	2,882	8,646	7,005	16,892
November.....	444	444	4,150	8,300	1,902	5,706	6,496	14,450
December.....	373	373	279	558	1,414	4,242	2,066	5,173
Total.....	132,167	132,167	71,066	142,132	9,771	29,313	213,004	303,612

*Cholera, immunization, per district, 1922*

Health districts	Persons who received one injection		Persons who received two injections		Persons who received three injections		Total persons injected	Total injections
	Total persons	Total injections	Total persons	Total injections	Total persons	Total injections		
No. 1, Intramuros.....	19,572	19,572	15,653	31,306	27	81	35,252	50,959
No. 2, Meisic.....	30,145	30,145	32,630	65,260	3,475	10,425	66,250	105,830
No. 4, Sampaloc.....	26,534	26,534	4,845	9,690	32	96	31,411	36,320
No. 5, Tondo.....	37,161	37,161	9,893	19,786	29	87	47,083	57,034
No. 6, Paco.....	18,755	18,755	8,043	16,070	6,206	18,624	33,008	53,469
Total.....	132,167	132,167	71,066	142,132	9,771	29,313	213,004	303,612

The efficacy of cholera immunization as auxiliary measure to fight cholera and to prevent future outbreaks of the disease, has been sufficiently established by facts as mentioned in the report for 1921. No person sufficiently immunized by recent injections against cholera suffered from it in 1922.

The results of the cholera vibrio survey made during the year, are noted in the table included in the Report of the Office of Vital Statistics entitled "Campaign for the Detection of cholera carriers, Manila, 1922."

## 2. TYPHOID FEVER

At the beginning of 1922, typhoid fever became epidemic in Manila. The causes of the outbreak was not well known, but the increase in the number of cases began on February, the month when the annual celebration of the carnival took place. It is believed that the assemblage of large number of persons and the rush method with which edible foods were being prepared



and served to the public, contributed greatly to the dissemination of typhoid bacilli by carriers to the thousands of people who visited daily the carnival city.

To have an idea of the amount of food consumed by the public during the carnival week, attention is called to the report of one food seller to the effect that he sold "ice-drops" (cylinders of iced sugar water, of about 1 inch diameter by 5 inches long, wrapped in paper) at the price of 1 centavo each, to the amount of ₱14,000 during the carnival week.

To fight the epidemic of typhoid fever, among the many measures enforced by the Health Service, should be mentioned the appointment of the Typhoid Investigation Committee, to study the causes, means of propagation, course, etc., of the disease, and recommend the most efficient measure to stamp it out as soon as practicable. The committee worked for about three months, after which it submitted the following:

#### GENERAL RECOMMENDATIONS

1. General sanitation as refers to waste disposal, garbage and other refuse disposal, use of same as a filling-in material, flies campaign, drainage, etc., must be given more attention.

2. Water supply of the City of Manila must be improved by improving the water treatment methods now employed.

3. Strict supervision and enforcement of sanitary rules and ordinances on all factories and other public places as center of distribution of foods and food-stuffs. Similar supervision must be exerted upon all food handlers.

4. The campaign for the finding and location of typhoid and paratyphoid carriers must be continued as a routine work. Incubation carriers, contact, convalescent and chronic healthy carriers specially among food-handlers must be subjects of preferent attention.

5. Follow-up and control of carriers is a very important factor and should not be overlooked.

6. Prompt reporting of cases must be secured from all physicians and hospitals.

7. Diagnostic methods must still be improved. The Philippine Health Service must afford all facilities for laboratory diagnosis.

8. Isolation and nursing methods in hospitals must be effective and carried out more or less in accordance with the regulations recommended by the committee.

9. Incomplete individual vaccination should not be permitted.

*Typhoid cases and deaths previously immunized in 1922*

Months	Total <sup>a</sup>		Cases and deaths injected					
	C.	D.	One time		Two times		Three times	
			C.	D.	C.	D.	C.	D.
January.....	71	32	0	0	0	0	0	0
February.....	131	37	0	0	0	0	0	0
March.....	224	62	0	0	0	0	0	0
April.....	181	37	4	1	2	0	0	0
May.....	111	27	3	1	1	0	0	0
June.....	104	31	10	2	6	0	0	0
July.....	88	13	4	1	4	0	0	0
August.....	88	15	4	1	3	2	0	0
September.....	73	16	6	0	6	1	0	0
October.....	82	20	7	0	3	1	0	0
November.....	78	18	6	1	6	1	1	1
December.....	64	20	3	0	7	0	1	0
Total.....	1,295	328	47	7	38	5	2	1

<sup>a</sup> Excluding transients.

The following table gives the total number of cases and deaths from typhoid fever in 1922 in comparison with those of the five preceding years:

Typhoid	1917	1918	1919	1920	1921	1922 <sup>a</sup>
Cases.....	525	497	511	642	676	1,295
Death.....	199	118	189	235	239	328
Fatality per 100 cases.....	37.9	23.74	36.98	36.49	35.35	25.33
Incidence per 1,000 population.....	1.88	1.75	1.77	2.20	2.28	4.32
Mortality per 1,000 population.....	0.71	0.41	0.65	0.80	0.80	1.09

<sup>a</sup> Excluding transients.

In the fight against typhoid, the Health Service enforced the following measures:

(a) Isolation of cases and carriers in San Lazaro Hospital and other hospitals in the city which have complied with the requirements of the Director of Health in regard to the screening of rooms wherein typhoid patients are being cared for, and immunization of nurses, other attendants and visitors.

(b) Repeated disinfection of infected houses and premises.

(c) Examination of specimens of feces from direct or indirect contacts for the discovery of carriers and their subsequent isolation in San Lazaro Hospital, other hospitals or houses to prevent the dissemination of typhoid bacilli.

(d) The measures recommended by the Typhoid Investigation Committee already mentioned in the preceding pages of this report.

(e) Immunization of the Manila population, specially of the contacts direct and indirect.

In the following tables are shown the total anti-typhoid injections in Manila during 1922, per month and per health district:

*Anti-typhoid injections<sup>1</sup> per months*

Months	Persons who received one injection	Persons who received two injections	Persons who received three injections	Total persons injected	Total injections made
January.....	309	213	68	590	939
February.....	1,966	135	110	2,211	2,566
March.....	13,075	7,055	632	20,762	29,081
April.....	10,336	8,234	1,046	19,616	29,942
May.....	6,218	6,175	92	12,485	18,844
June.....	5,786	12,773	185	18,744	31,887
July.....	0	13,622	873	14,495	29,863
August.....	5,562	13,789	594	19,945	34,922
September.....	870	9,380	2,035	12,285	25,735
October.....	0	5,845	2,892	8,737	20,366
November.....	444	4,150	1,902	6,496	14,450
December.....	373	279	1,414	2,066	5,173
Total.....	44,939	81,650	11,843	138,432	243,768

<sup>1</sup> Including mixed typhoid and cholera inoculations.

*Anti-typhoid injections<sup>1</sup> per health district*

Health districts	Persons who received one injection	Persons who received two injections	Persons who received three injections	Total persons injected	Total injections made
No. 1, Intramuros.....	8,571	17,418	323	26,312	44,376
No. 2, Meisic.....	6,496	65,654	3,528	42,851	82,734
No. 4, Sampaloc.....	9,698	13,851	518	24,067	38,954
No. 5, Tondo.....	12,946	12,100	74	25,120	37,368
No. 6, Paco.....	7,228	5,454	7,400	20,082	40,336
Total.....	44,939	81,650	11,843	138,432	243,768

<sup>1</sup> Including mixed typhoid and cholera inoculations.

Of these number of injections, more than 65.66 per cent were made with mixed typhoid and cholera vaccine; the balance, 34.34 per cent, were of pure anti-typhoid.

The immunity acquired by the Manila anti-typhoid injected population, was not absolute.

The very immunity caused by previous cases of smallpox is not absolute, as it is proved by several cases of the disease. So, the immunity of the Manila population treated with anti-typhoid injections is not absolute.

As a matter of fact, of the 1,295 confirmed cases of typhoid fever which occurred in Manila during 1922, there were 87 cases of persons previously immunized by anti-typhoid injections, 47 of whom received one injection each; 38, two injections each; and 2 were injected three times.

In order to have a clear idea of the degree of immunity against typhoid fever acquired by the Manila injected popula-

tion, it is necessary to make here the two following comparative statements:

(1) Total non-injected population of Manila.....	161,322
Total cases of typhoid in non-injected population.....	1,208
Incidence per 100,000 non-injected population.....	748.81
Mortality per 100 non-injected cases.....	26.07
(2) Total injected population of Manila against typhoid fever..	138,432
Total typhoid cases of injected population.....	87
Incidence per 100,000 injected population.....	62.84
Mortality per 100 injected cases.....	14.94

The contrast as shown by the two preceding statements is very remarkable; for, while in every 100,000 persons non-immunized against typhoid fever, there were 748.81 cases of the disease, and 26.08 per 100 cases died; among the anti-typhoid injected persons only 62.84 per 100,000 population contracted typhoid and the mortality reached only 14.94 per 100 cases. It was thus proved by actual facts that anti-typhoid injections greatly contributed in reducing the incidence and mortality of typhoid fever in Manila during 1922.

The two tables included in the Report of the Office of Vital Statistics on the "campaign for detection of typhoid carriers for the calendar year 1922 in the City of Manila" show that of 1,169 persons the blood specimens of whom were examined in the Bureau of Science, 92 or 7.87 per cent resulted positive for Widal Reaction; while of 9,383 individuals whose stool specimens were sent to said Bureau for examination, 108 or 1.15 per cent were culturally positive for bacillus typhosus.

### 3. DYSENTERY

During 1922, Manila had 250 cases and 124 deaths from dysentery among its permanent residents.

A comparison of the cases and deaths from dysentery in 1922 with those in the last five years, 1917 to 1921 inclusive, with special reference to the percentage fatality, and the morbidity and mortality rates per 1,000 population, is shown in the following table:

Dysentery	1917	1918	1919	1920	1921	1922 <sup>a</sup>
Cases.....	851	839	737	576	356	250
Deaths.....	294	218	414	265	135	124
Fatality per 100 cases.....	34.54	25.98	53.03	46.00	43.53	49.60
Incidence per 1,000 population.....	3.04	2.96	2.56	1.96	1.20	0.83
Mortality per 1,000 population.....	1.05	0.76	1.44	0.90	0.62	0.41

<sup>a</sup> Excluding transients.

The foregoing table indicates that dysentery in Manila had a steady decrease from 1917 to 1922. Considering that the decrease was the result of the measures enforced by the Health

Service, it remains to explain why said measures failed to produce the same result with regard to typhoid fever, which, like dysentery in its two forms, bacillary and amœbic, is an intestinal infection, and the portal of entry is the mouth.

The following are the cases and deaths from dysentery in Manila during 1922, tabulated to show the percentage fatalities, morbidity and mortality rates per 100,000 population by months:

Months	Total		Fatality per 100 cases	Incidence per 100,000 population	Mortality per 100,000 population
	Cases	Deaths			
January.....	23	15	65.21	7.67	5.00
February.....	21	4	19.04	7.01	1.53
March.....	12	6	46.15	4.34	2.00
April.....	9	3	33.33	3.00	1.00
May.....	9	7	77.77	3.00	2.34
June.....	23	14	60.87	7.67	4.67
July.....	38	24	63.16	12.68	8.01
August.....	45	19	42.22	15.01	6.34
September.....	19	9	47.57	6.54	3.00
October.....	12	5	41.67	4.00	1.67
November.....	19	7	36.84	6.34	2.64
December.....	20	11	55.00	6.67	3.67
Total.....	250	124	49.60	83.40	41.37

The following table shows, per health district, the total stool specimens taken from contacts of dysentery patients, which were submitted to the Bureau of Science for examination, during 1922:

Health stations	Number of specimens examined	Positive
No. 1, Intramuros.....	63	2
No. 2, Meisic.....	236	0
No. 4, Sampaloc.....	48	1
No. 5, Tondo.....	1	0
No. 6, Paco.....	79	0
Total.....	427	3

#### 4. SMALLPOX, VARIOLOID, AND VARICELLA

As in the year 1921, Manila did not have any case of smallpox during 1922. Such a satisfactory condition was evidently the result of the continuous vaccination and revaccination campaign against smallpox of the inhabitants of Manila from 1918 to the present date.

The following table is a comparative demonstration of the smallpox situation in Manila from 1917 to 1922:

Smallpox	1917	1918	1919	1920	1921	1922
Cases.....	3	1,326	57	5	0	0
Deaths.....	2	869	29	3	0	0
Fatality per 100 cases.....	66.66	65.83	50.81	60.00	0	0
Incidence per 1,000 population.....	0.01	4.68	0.19	0.09	0	0
Mortality per 1,000 population.....	0.01	3.66	0.10	0.01	0	0

It is evident in the foregoing table that from 1918 to 1920, smallpox gradually diminished every year in Manila, and entirely disappeared in 1921 and 1922.

The following table comprises the anti-smallpox vaccinations and revaccinations and the inspections of vaccination and revaccinations performed in Manila, per month, during 1922:

*Anti-smallpox vaccinations and revaccinations in the City of Manila, by months, during 1922*

Months	Total vaccinations	Inspections		
		Total	Positive	Negative
January.....	14,099	1,443	1,199	244
February.....	22,681	1,836	1,457	379
March.....	21,385	1,944	1,636	309
April.....	5,970	1,365	1,147	218
May.....	6,923	1,763	822	941
June.....	9,626	2,072	1,540	533
July.....	8,060	1,308	1,177	131
August.....	5,426	1,229	1,082	147
September.....	4,686	2,179	1,558	621
October.....	4,765	2,493	1,573	920
November.....	3,355	2,319	1,590	729
December.....	4,673	1,968	1,486	482
Total.....	111,649	21,919	16,267	5,652

#### VARIOLOID

During 1922, there was a case of varioloid in the month of July, and no death.

#### VARICELLA

In the following table are indicated all the cases of varicella including those of transients:

Months	Manila residents		Transients from provinces		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
January.....	42	0	4	0	46	0
February.....	24	0	2	0	26	0
March.....	73	0	11	0	84	0
April.....	53	0	3	0	56	0
May.....	30	0	3	0	33	0
June.....	4	0	0	0	4	0
July.....	1	0	0	0	1	0
August.....	3	0	7	0	10	0
September.....	2	0	2	0	4	0
October.....	7	0	0	0	7	0
November.....	6	0	0	0	6	0
December.....	4	0	0	0	4	0
Total.....	249	0	32	0	281	0

#### 5. DIPHTHERIA

During 1922 the City of Manila had forty-two (42) resident cases with fifteen (15) deaths from diphtheria, excluding twelve (12) cases with seven (7) deaths who were brought from the provinces to Manila hospitals for treatment.

The following table is a demonstration of the diphtheria situation in Manila, from 1917 to 1922, inclusive:

Diphtheria	1917	1918	1919	1920	1921	1922 <sup>1</sup>
Cases.....	79	45	69	65	56	42
Deaths.....	27	15	19	17	20	15
Fatality per 100 cases.....	34.17	33.33	27.53	26.15	35.71	35.71
Incidence per 1,000 population.....	0.28	0.15	0.24	0.22	0.18	0.14
Mortality per 1,000 population.....	0.09	0.05	0.06	0.05	0.06	0.05

<sup>1</sup> Excluding transients.

It appears from 1919 to 1922, that diphtheria decreased gradually in Manila every year. But while the incidence rates from diphtheria were in constant decrease during the last four years, the fatality per 100 cases increased in both 1921 and 1922. This fact may be due either to a delayed medical treatment of the majority of the patients, or to an increase in virulence of the disease.

## 6. RABIES

During the year 1922 there were in Manila 153 persons who were bitten by suspected rabid dogs, including two permanent residents who were bitten in the provinces; and one from the municipality of San Pedro, Laguna, who, having been bitten in that province, came to Manila where he died of rabies.

The following table demonstrates, per health district, the total number of permanent residents bitten by suspected rabid dogs, those who were submitted to Pasteur treatment, persons who contracted rabies, and the number of suspected rabid dogs examined:

Health districts	Persons bitten by suspected rabid dogs	Persons submitted Pasteur treatment	Persons contracted rabies	Suspected rabid dogs examined	Dog found positive for rabies
No. 1, Intramuros.....	22	21	1	21	0
No. 2, Meisic.....	33	33	0	33	0
No. 4, Sampaloc.....	23	23	0	23	0
No. 5, Tondo.....	38	38	0	38	0
No. 6, Paco.....	37	37	1	36	0
Total.....	153	152	* 2	151	0

\* Excludes one transient from San Pedro, Laguna, who died on June 28, 1922, in San Lazaro Hospital.

One of the human cases of rabies was that of Luciano Quenco, residing at 153 Santa Potenciana Street, Intramuros. While on one-week vacation in his home town, Santa Rita, Pampanga, he was bitten by a little dog in the month of June, 1922. Toward the end of July, he was attacked by hydrophobia; he was taken to San Juan de Dios Hospital where he died from it on the 29th of that month.

The other case of human rabies was that of Antonio Ancheta, residing at 178 Laborer Street, Pandacan, Manila. He was a transient in this city from San Juan, La Union Province, where he was bitten on June last by a suspected rabid dog. While still in La Union, he received 12 anti-rabic injections. Without completing his Pasteur treatment, he came to Manila on July 13. On July 14 he went to the Paco Health Station requesting surgical treatment for the wound caused by the bite of the dog. On being informed of the cause of the wound, the chief physician of the health station of Paco referred him for Pasteur treatment to the Bureau of Science; but on becoming seriously sick, Ancheta applied and was admitted in the Philippine General Hospital. On July 17, one of the physicians of that institution, transferred Ancheta to the San Lazaro Hospital, but the patient did not reach San Lazaro, for he was so seriously sick and died in the Ambulance.

#### 7. INFLUENZA

The number of cases and deaths from influenza during 1922 are specified in the following table, which shows that after the great epidemic of 1918, the mortality from that disease has not yet returned to the low figures of 1916 and 1917:

Years	Cases	Deaths	Mortality per 100 cases
1917.....		13	
1918.....	37,950	1,156	3.05
1919.....		45	
1920.....		37	
1921.....	241	47	19.50
1922.....	* 256	* 53	20.70

\* Including transients.

Of the total cases and deaths in 1922, 43 cases and 14 deaths were of patients brought from the neighboring provinces to the Manila hospitals for medical treatment.

In the foregoing table, it is seen that while in 1918 the mortality from influenza per 100 cases was only 3.05, in 1921 and 1922 the percentage fatalities of the disease were 19.50 and 20.70 per 100 cases, respectively.

#### 8. ENCEPHALITIS LETHARGICA

During the last two months, November and December, 1922, encephalitis lethargica (epidemic encephalitis) was slightly prevalent in the City of Manila.



Though this disease was not included among the reportable diseases and it has not yet been determined whether it constitutes a new specific disease or it is simply a new symptomatic variation of a disease of the nervous system, yet, because it might attain an epidemic form, preventive measures were enforced by the health service, requiring the practicing physicians in Manila, the chiefs and directors of hospitals, to report all actual and all suspected cases under their treatment.

The disease usually begins rather suddenly with some pains, insomnia, malaise, headache, motor disturbances, lethargy, ocular symptoms, asthenia, profuse sweating, sometimes with exanthematic manifestations. As a rule, the rise of temperature (taken at the axilla) does not exceed 37.5 to 38.5° C. Nervous alterations, consisting of tremors, choreiform movements, contraction of muscles, delirium, coma and lethargy; frequent vomiting, and constipation were the usual clinical manifestations of the disease. The convulsive or the myoclonic types were more prevalent; lethargic cases were not frequent.

During November and December of 1922, there have been reported to the Health Service the cases and deaths stated in the following table:

*Cases and deaths of encephalitis lethargica in Manila in 1922*

Months	Residents			Transients			Total		
	Cases	Deaths	Deaths per 100 cases	Cases	Deaths	Deaths per 100 cases	Cases	Deaths	Deaths per 100 cases
November.....	0	0	0	1	1	100	1	1	100
December.....	32	8	25.00	9	3	33.33	41	11	26.83
Total.....	32	8	25.00	10	4	40.00	42	12	28.57

Besides the reporting of cases and deaths as preventive measures, to prevent the spread of the disease, the isolation of patients and disinfection of houses and premises which have been occupied by them were carried out.

To promote the study of the disease thru scientific investigations, steps were taken to obtain the bodies of fatal cases for autopsy.

#### **PREVAILING DISEASES NOT CLASSIFIED AS EPIDEMIC**

##### **1. TUBERCULOSIS, BERI-BERI, BRONCHITIS, AND PNEUMONIA**

As in the previous year 1921, tuberculosis of the lungs, beri-beri, bronchitis, and broncho-pneumonia were the more prev-

alent diseases in Manila during 1922; and as in previous years, tuberculosis of the lungs caused more deaths in Manila than any other disease; beri-beri, bronchitis, and broncho-pneumonia occupying the second, third, and fourth places, respectively, in the list of the causes of deaths in this city.

The following table shows the total number of deaths caused by the four above-mentioned diseases from 1917 to 1922, inclusive:

Diseases	1917	1918	1919	1920	1921	1922 <sup>a</sup>
Tuberculosis of the lungs.....	1,250	1,692	1,424	1,419	1,359	1,307
Beri-beri.....	403	571	327	555	705	648
Bronchitis.....	469	981	443	678	689	646
Broncho-pneumonia.....	289	884	301	379	465	519

<sup>a</sup> Excluding transients.

The general death rate in 1922 was greatly influenced by the diseases mentioned in the foregoing table to the extent that 43.21 per 100 of the total (7,221) deaths among permanent residents in that year were caused by them.

## 2. CONGENITAL DEBILITY, DIARRHEA AND ENTIRITIS UNDER TWO YEARS, SIMPLE MENINGITIS, AND CONVULSIONS OF INFANTS

These four diseases were the principal factors which influenced the mortality of early childhood during 1922. Congenital debility caused more fatalities than the rest.

The following comparative table shows the total deaths caused by the above-mentioned diseases during the preceding 6 years from 1917 to 1922, inclusive:

Diseases	1917	1918	1919	1920	1921	1922 <sup>a</sup>
Congenital debility.....	565	820	589	657	644	581
Diarrhea and enteritis under two years.....	349	649	375	383	314	285
Simple meningitis.....	253	448	295	303	263	187
Convulsions of infants.....	239	230	154	95	41	15
Total.....	1,406	2,147	1,413	1,438	1,262	1,068

<sup>a</sup> Excluding transients.

Total deaths of infants under one year.....	2,311
Total deaths of infants one year to six years.....	1,276

It is seen in the above figures that the mortality in Manila among the children population up to 6 years of age is continually decreasing from year to year, especially from 1920 to 1922, inclusive. Moreover, the infant mortality of 1922 was the lowest during the past 6 years.

## OTHER PREVENTIVE MEASURES AGAINST COMMUNICABLE DISEASES

### 1. RAT EXTERMINATION

#### CAMPAIGN AGAINST PLAGUE

During 1922 the work of rat extermination in Manila, and other measures enforced to prevent the outbreak of bubonic plague, are summarized in the following list of activities:

Number of wagon-loads of refuse removed.....	20
Number of spring traps set.....	244,820
Number of rats caught by spring traps.....	47,688
Number of cage wire traps set.....	5,430
Number of rats caught by cage wire traps.....	96
Number of baits used (coconuts).....	250,259
Number of portions placed.....	310,163
Number of rats found poisoned.....	9,434
Number of rats killed by clubs and other weapons....	17,407
Number of rats found dead from other causes.....	7,005
Total number of rats caught during the year and sent to Bureau of Science for examination.....	18,630
Number of rats reported as infected by the Bureau of Science .....	0
Number of rat complaints received.....	860
Number of rat complaints attended.....	860
Number of patients sent to San Lazaro Hospital for observation for plague.....	18
Number of patients found clinically positive for plague .....	0
Cadavers sent for autopsy to San Lazaro Morgue, or patients diagnosed of bubonic plague.....	1
Cadavers autopsied found positive for bubonic plague	1

The human case of bubonic plague referred to above, was the case of Oh Cheng Suy, a Chinese, 27 years old, male, silversmith by occupation, married, who on June 1st arrived in Manila on board the steamship *Taisang*, from Amoy, China, where bubonic plague was prevalent at that time. He landed on that date and went to reside with one of his Chinese relatives at 745 Calle Nueva, Binondo.

Oh Cheng Suy remained there apparently well until the morning of June 3, when he complained of general malaise, headache, mild fever, but did not go to bed.

On the morning of June 4, the patient became worse until he was not able to leave his bed, and on the evening, he became so seriously sick that his relative with whom he was living was compelled to call Dr. Tee Han Kee, a Chinese physician, who diagnosed the case as that of bubonic plague. Not long after

the physician's visit the patient died before midnight of June 4. Dr. Tee Han Kee reported the case to the Health Station No. 2, and the dead body was taken to the San Lazaro Morgue for autopsy.

The next day, June 5, the *post-mortem* examination was made, and the result confirmed the diagnosis made of bubonic plague.

The house wherein the patient lived and died, and the surrounding houses were repeatedly inspected for rats and disinfected, and the occupants thereof were daily visited by physicians of the Service to see whether or not they were infected with the plague, and to isolate them immediately in case of infection.

The patients sent to San Lazaro Hospital for observation for plague were Chinese from Amoy, who at the time of their landing in Manila were found sick with slight fever.

The following orders were issued during 1922, in connection with the campaign against bubonic plague:

Minor sanitary orders remaining from December 31, 1921 .....	13
Minor sanitary orders issued during 1922.....	960
Minor sanitary orders completed.....	954
Minor sanitary orders awaiting action.....	0
Number of fines: ₱5 for dumping refuse on lots.....	1
Number of fines: ₱5.50 for dumping refuse on lots.....	1
Number of fines: ₱2.50 for non-compliance of sanitary order issued .....	3
Number of fines: ₱3.50 for non-compliance of sanitary orders issued.....	1
Number of fines: ₱5.50 each, for non-compliance of sanitary orders issued.....	9
Number of fines: ₱10.50 each for non-compliance of sanitary orders issued.....	3
Number of cases dismissed by the Municipal Board....	1

## 2. MOSQUITO CAMPAIGN

### CAMPAIGN AGAINST MALARIA

During 1922, the mosquito campaign in Manila consisted, as in the preceding year, of the destruction or removal of mosquito breeding places within the houses, from the surroundings of residential sections, and from either private or public lands near the inhabited buildings.

Standing waters that were difficult or impracticable to drain, were repeatedly oiled, (in order to make it impossible for the female anopheles mosquitoes to lay their eggs and for the mosquito larvæ to breathe on the surface of the water and to live in).

The following list shows briefly the work accomplished in the City of Manila during 1922 for mosquito control:

Number of house-inspections during the year.....	147,925
Number of houses where breeding places for mosquitoes were found .....	12,273
Number of mosquito breeding places found in yard of houses.....	11,102
Number of vessels ordered emptied or removed.....	8,275
Number of drains ordered cleaned.....	3,611
Lineal feet of drains ordered dug.....	1,640
Number of breeding places oiled on public properties..	123,238
Number of receptacles overturned.....	9,475
Square feet of grass ordered out.....	1,846
Number of drums of oil used.....	273
Number of sanitary orders issued.....	1,286
Number of insanitary conditions reported to health stations .....	165
Number of mosquito complaints attended.....	1,695
Number of punishment: 1 month in prison.....	1
Number of fines: ₱3.....	1
Number of fines: ₱3.50 each.....	2
Number of fines: ₱4.50.....	1
Number of fines: ₱5 each.....	2
Number of fines: ₱5.25 each.....	2
Number of fines: ₱5.50 each.....	51
Number of fines: ₱10 each.....	3
Number of fines: ₱10.50 each.....	10
Number of fines: ₱15.50.....	1
Number of fines: ₱30.....	1
Number fines: ₱40.....	1

### 3. FLY EXTERMINATION

The fly extermination campaign enforced in previous years by the Philippine Health Service, continued during 1922. As in former years, the fly campaign was one of the preventive measures enforced by the Service, not only for the abatement of nuisances caused by the presence of the insect, but for the diminution or, if possible, complete elimination of one of the most effective carriers of communicable disease, (the infection of which enters the system thru the mouth with the food or drink).

In 1922, besides the repeated disinfections of refuse dumped on different sections of the city to fill in low lands, the personnel employed in the fly extermination campaign, has performed the following activities:

Number of stables inspected during 1922.....	1,910
Number of stables ordered cleaned.....	1,020
Number of stables cleaned.....	1,020
Market inspection made.....	12

The work of the mosquito and fly campaign during 1922 was performed by the following employees: 1 sanitary inspector, 14 assistant sanitary inspectors, 1 foreman, 1 subforeman, and 21 laborers.

#### 4. SUMMARY OF THE SITUATION

Comparing the sanitary conditions and the sanitary works accomplished in Manila during 1922, with those of 1921, it is satisfactory to note the improvements during the former. This conclusion is justified by the decrease of the annual death rate per 1,000 population, and by the increase of the anti-cholera and anti-typhoid injections during 1922.

In fact, during 1922, there were more people in Manila, who received anti-cholera and anti-typhoid injections than during 1921. This statement is verified by the figures in the following table:

Injections made	1921	1922
Anti-cholera.....	47,094	303,612
Anti-typhoid.....	17,696	243,768

<sup>a</sup> Including mixed typhoid and cholera innoculations.

#### OTHER ACTIVITIES

##### 1. MEDICAL RELIEF

During the year the medical relief accomplished by the medical officers under the chief, Division of Sanitation in Manila, are condensed in the following table:

Health districts	Total patients treated	Total visits	Deaths
No. 1, Intramuros.....	1,720	1,833	0
No. 2, Meisic.....	537	3,394	0
No. 4, Sampaloc.....	3,501	3,831	0
No. 5, Tondo.....	2,975	9,538	0
No. 6, Paco.....	885	1,943	1
Total.....	9,618	20,539	1

##### 2. PHYSICAL EXAMINATION

During 1922, the committee appointed by the Director of Health, and the Medical Officers in charge of Health Station No. 1, made 1,171 physical examinations of:

- (a) Applicants for Civil Service examinations.
- (b) Candidates for Civil Service appointment.

(c) Candidates for Civil Service reinstatements.

(d) Applicants for retirement who are specified in the classified list.

More than 98 per cent of the above-mentioned physical examinations were made by the physicians in charge of Health Station No. 1, and the balance by the medical committee, appointed by the Director of Health, which examined the physician candidates for appointment in the commissioned service of the Philippine Health Service.

### 3. SANITARY INSPECTIONS AND DISINFECTIONS IN 1922

Total number of miscellaneous sanitary inspections..	541,127
Total number of re-inspections.....	133,192
Total number of disinfections made in connection with communicable diseases and insanitary places..	151,498

### 4. SANITARY ORDERS ISSUED

Total number of houses ordered cleaned.....	95,005
Total number of houses cleaned.....	94,993
Total number of houses ordered white washed and painted .....	1,671
Total number of houses washed and painted.....	1,518
Total number of garbage cans ordered.....	1,608
Total number of orders issued for sewer connection..	12
Total number of yards ordered cleaned.....	34,142
Total number of yards cleaned.....	34,108
Total number of written orders complied with.....	5,142
Total number of written orders awaiting action.....	496
Total number of written orders pending in court.....	14
Total number of persons convicted for violation of the sanitary ordinances (mosquito infractions excepted)	271

### 5. FOODS CONDEMNED

By Health Station No. 1, Intramuros:

Kinds of food condemned	Units	Quantities
Sardines .....	cases....	1,381
Pilchards (Anchoviss).....	do.....	485
Libby's Spinach.....	do.....	165
Libby's cabbage.....	do.....	54
Hams .....	do.....	2
Chocolates .....	tins....	21
Biscuits .....	do.....	1008
Breads .....	loaves....	649
Cakes .....	do.....	240
California grapes.....	kegs....	615
Chickens .....	No.....	1

## By Health Station No. 2, Meisic:

Kinds of food condemned		Units	Quantities
Eggs .....	No....	4,797	
Fish .....	Kilos....	7,490	
Do .....	No....	225	
Do .....	baskets....	10	
Crabs .....	kilos....	3,874	
Shrimps .....	do....	2,630	
Bananas .....	do....	3,757	
Cabbages .....	do....	1,629	
Potatoes .....	do....	572	
Alamang .....	do....	420	
Onions .....	do....	234	
Melons .....	do....	324	
Water melon .....	do....	530	
Tomatoes .....	do....	87	
Mangos .....	do....	580	
Apples .....	do....	348	
Pineapples .....	do....	681	
Papayas .....	do....	434	
Cakes .....	kilos....	10	
Bucayo .....	do....	9	
Hopia .....	do....	18	
Pilipit .....	do....	2	
Bitcho-bitcho .....	do....	3	
Sugared sweet potatoes .....	do....	15	
Tokua .....	do....	8	
Bakery products .....	do....	311- $\frac{1}{2}$	
Do .....	baskets....	25	
Talanca .....	do....	3	
Do .....	tins....	11	
Hala-an .....	sack....	$\frac{1}{2}$	
Tulia .....	kilos....	2	
Tortuga .....	kilos....	10	
Almejas .....	do....	63	
Caracoles .....	do....	5	
Miki .....	do....	2	
Meat .....	do....	417	
Menudencias .....	do....	5	
Pork .....	do....	133	
Bagoong-fish .....	do....	224	
Do .....	tin....	$\frac{1}{2}$	
Bagoong-shrimps .....	kilos....	57	
Caligay .....	do....	9	
Do .....	basket....	1	
Milk .....	can....	1	
Grasshoppers .....	kilos....	1,646	
Do .....	baskets....	47	
Do .....	sacks....	22	
Miscellaneous .....	kilos....	4	
Do .....	tins....	2	



## By Health Station No. 4, Sampaloc:

	Units	Quantities
Biscuits (American crackers).....	cans....	35
Bread (pan de leche, etc.).....	Number....	225
Cakes (mamon and pianono).....	kilos....	15
Fish:		
Dorado .....	Number....	95
Hasahasa .....	do.....	297
Tamban .....	basket....	1
Malaybalay .....	do.....	1
Locust .....	sacks....	7
Shell fish (talaba).....	do.....	1

## By Health Station No. 5, Tondo:

	Kinds of food condemned	Units	Quantities
Locust .....		sacks....	20
Meat .....		kilos....	64
Crabs .....		do.....	139
Miscellaneous .....		do.....	1,489
Fish:			
Hasahasa .....		fishes....	6,314
Baños .....		do.....	11,396
Sapsap .....		do.....	855
Candule .....		do.....	200
Besugo .....		do.....	200
Bongoan .....		do.....	20
Talilong .....		do.....	45
Eggs .....		No....	205
Sardines .....		tins....	2,014
Bagoong .....		oil-cans....	43

## By Health Station No. 6, Paco:

	Kinds of food condemned	Units	Quantities
Meat .....		kilos....	10
Locust .....		sacks....	69
Bitcho-bitcho, pote, and bread.....		baskets....	2
Oysters .....		do.....	20
Fish:			
Salted .....		cans....	3
Besugo .....		boxes....	2
Baños .....		fishes....	346
Hasahasa .....		do.....	1,300
Dorado .....		do.....	276
Candule .....		do.....	97
Dried .....		do.....	157

## 6. WATER SUPPLY

During 1922 the City of Manila continued receiving its water supply from the Mariquina and Montalban Rivers, through the agency of the Metropolitan Water District. There were 278

hydrants for public use, in addition to the domiciliary water service established in almost all public buildings and private houses of Manila.

No new artesian wells were reported additional to those (31) existing in the previous year, 8 of which belong to private concerns, and the balance to the city government.

The artesian waters from the neighboring municipalities, San Juan del Monte, Pasay and San Pedro Macati of Rizal Province, and the town of Marilao of the Province of Bulacan, continued supplying many people of Manila during the year, brought by Manila and provincial water dealers.

The campaign of the Philippine Health Service against preventable communicable diseases, comprised the daily biological examination of samples of water taken from the Metropolitan Water District, samples of water from artesian wells and of drinking water in public establishments, as hotels and similar places, restaurants, clubs, tiendas, saloons, bars, soda factories, public schools, private schools, and other public places where drinking water is served to the public. The examination of said water was done by the Bureau of Science, the reports of which, once received, enables the Health Service to have an efficient control on the water served in the above-mentioned establishments.

As a result of the examinations, sari-sari tiendas were strictly prohibited from continuing to serve water to the public, because in the majority of cases, this water was found unfit for drinking purposes.

In the following table are shown the total samples of water of the Metropolitan Water District examined during the year and the total thereof found unfit for drinking purposes:

Months	Number of samples examined	Bacterial count			Positive for—					Total of samples unfit for drinking	Percentage unfit for drinking
		Less than 100,000	100,000 to less than 1,000,000	1,000,000 and over	Presumptive test	B. Coli	Amoeba	Flagellates	Ciliates		
January .....	93	93	0	0	0	0	0	0	0	0	0
February .....	84	84	0	0	0	0	0	0	0	0	0
March .....	115	115	0	0	6	4	0	0	0	6	3.47
April .....	122	122	0	0	18	6	0	0	0	4	4.92
May .....	93	93	0	0	30	10	0	0	0	10	10.75
June .....	90	90	0	0	19	14	0	0	0	14	15.56
July .....	89	87	0	2	40	31	0	0	0	33	37.08
August .....	93	92	0	1	46	38	0	0	0	30	41.94
September .....	89	86	0	3	38	31	0	0	0	34	38.20
October .....	92	89	0	3	34	24	0	0	0	27	29.35
November .....	88	84	3	1	24	21	0	0	0	22	25.00
December .....	93	93	0	0	30	14	0	0	0	14	15.05
Total .....	1,141	1,128	3	10	285	193	0	0	0	203	17.79

The following table shows the samples of water from public establishments, examined during the year, including the percentage of water samples found unfit for drinking purposes:

Health districts	Samples exam- ined	Bacterial count				Positive for—				Sample unfit for drinking	Percentage unfit for drinking
		Less than 100,000	100,000 to less than 1,000,000	1,000,000 and over	Presumptive test	Bacillus Coli	Amœba	Flagellates	Ciliates		
No. 1, Intramuros.....	620	553	49	27	168	119	0	0	0	146	23.21
No. 2, Meisic.....	2,340	2,124	125	91	874	660	0	0	0	751	32.09
No. 4, Sampaloc.....	2,943	2,481	330	132	1,717	566	0	0	0	698	23.72
No. 5, Tondo.....	2,497	2,004	341	152	327	219	0	0	0	371	14.85
No. 6, Paco.....	1,318	1,128	176	14	307	259	0	0	0	273	20.71
Total.....	9,727	8,290	1,021	416	3,393	1,823	0	0	0	2,239	23.02

#### RULES FOR SCORE

1. (a) 100,000 bact. per c.c. or over "*suspicious*,"  
(b) 1,000,000 bact. per c.c. or over "*unfit*."
2. Presumptive test positive, "*suspicious*."
3. B. Coli positive, "*unfit*."
4. Amœba, flagellate, ciliate if only one group, unimportant; if more than one group, "*suspicious*."
5. Drinking water found "*suspicious*," warn the user.
6. Drinking water found "*unfit*," if first sample warn the user; if second sample, revoke license, or institute proper prosecution.

#### 7. GENERAL SANITATION

The work accomplished by the Division of Sanitation, Philippine Health Service, in Manila during 1922, consisted as in previous years, of the daily inspection of food and food stuffs for sale in said markets and of the enforcement therein of the sanitary regulations of the health service.

The markets located within the Health District No. 2, Meisic—Divisoria, Quiapo, and Azcarraga Markets—were the most important. More personnel were assigned therein during the year. The greater part of the food condemned as unfit for human consumption stated in previous pages of this Report were taken from those markets.

Thru repeated recommendations of the Chief, Division of Sanitation of Manila, the lowlands with permanent standing dirty water located immediately behind and to the right side of the San Andres Market, Malate, have been filled up by the city and by doing so the surrounding sites of said market not only were materially and permanently improved, but the cause of nuisance and permanent source of disease and of disease carriers was removed.

Uninterrupted inspections in all the city markets, without exception, have been carried out during the year, not only by sanitary inspectors and sanitary policemen but also by the medical inspectors in charge of the health stations, and by the Chief, Division of Sanitation of Manila.

#### 8. MANILA SLAUGHTER HOUSES

The sanitary condition of the two Manila slaughter-houses one located in Calle Azcarraga and the other in Pandacan, was maintained thruout the year.

Nevertheless, an anonymous report was received toward the end of the year, to the effect that condemned parts of slaughtered animals were at first concealed in some places of the slaughter-house in Azcarraga Street and afterwards taken by the interested persons when employees and laborers were gone, and were prepared and sold as food to the public.

This report was closely investigated by the Service, employing in the investigation personnel without uniform in order not to provoke suspicion on the part of the guilty persons. After a reasonable length of time has elapsed without any positive result, the matter was referred to the secret service department of the city, which, after a careful work to verify the reported infraction, reported to this office stating that no proofs could be found to prove the truth of the complaint.

#### 9. GARBAGE AND REFUSE DISPOSAL

The collection and ultimate disposal of garbage in Manila and of other kinds of refuse in general, is under the charge of the department of engineering and public works of the city government. The part of this work corresponding to the Health Service consists in supervision to see that the city ordinances referring to this matter are duly complied with by all persons concerned.

During 1922, the dual final disposition of refuse continued in force; incineration and dumping in lowlands.

In the 1922 clean-up week, all the personnel in the five health districts of Manila were employed with the assistance of the municipal police, to make from house-to-house visits and inspections, urging the people to clean their houses and premises. Mr. Santiago Artiaga, engineer of the City of Manila, furnished the undersigned as Director of the clean-up week with 64 men and 5 trucks from December 13, and the military authorities with 5 teams of horses and 5 drivers.

During the clean-up week, 2,930 cubic meters of rubbish have been collected and disposed of in Manila as follows:

	cu. m.
By street division.....	2,450
By the personnel of the 5 health districts.....	300
By the night refuse collectors.....	180

Total ..... 2,930

The following table shows the total number of buildings and places inspected during the week and the average score attained in cleanliness:

Items	Estimated number of premises	Total number participated	Average score
1. Dwellings.....	27,037	26,677	80.07
2. Schools.....	129	129	93.66
3. Shops.....	3,062	3,059	93.08
4. Office buildings.....	1,191	1,191	88.65
5. Amusements.....	58	58	93.07
6. Churches.....	35	35	95.08
7. Public places.....	767	767	91.07
Total.....	32,279	31,916	90.67

It appears from the foregoing table that churches obtained 95.08, the highest score in cleanliness, while dwellings only had 80.07, the lowest average in the list.

The following table comprises the sanitary reports submitted by the five health districts of Manila referring to insanitary conditions found and sanitary conditions corrected during the 1922 clean-up week:

Health districts	Places found insanitary				
	Improper handling of drinking water	Mosquito breeding places	Domestic animals	General cleaning	Defective or lack of disposal of refuse
No. 1, Intramuros.....	329	258	184	.....	320
No. 2, Meisic.....	1,976	1,121	1,816	2,314	.....
No. 4, Sampaloc.....	2,189	346	388	3,256	1,872
No. 5, Tondo.....	879	5,320	230	3,790	.....
No. 6, Paco.....	387	376	284	.....	257
Total.....	5,760	7,421	2,902	9,360	2,449

Health districts	Insanitary conditions corrected					Sanitary inspectors police-men and laborers	Number of days spent
	Improper handling of drinking water	Mosquito breeding places	Domestic animals	General cleaning	Defective or lack of disposal of refuse		
No. 1, Intramuros....	130	203	109	.....	154	44	13
No. 2, Meisic.....	1,802	1,016	1,672	2,216	.....	61	12
No. 4, Sampaloc.....	2,021	321	.....	3,147	1,462	53	13
No. 5, Tondo.....	390	4,130	199	3,545	.....	55	18
No. 6, Paco.....	355	290	250	.....	251	44	14
Total.....	4,698	5,960	2,230	8,908	1,847	.....	.....

Average number of insanitary places found per man per day ..... 8.35

Average number of insanitary conditions corrected per man per day..... 7.08

## 10. SEWAGE DISPOSAL

There are still many sections of the City of Manila to which the sanitary sewer has not been extended, and as a result thereof, dwelling houses and other kind of construction erected in those sections have no actual connection with the sewer. But even in the districts of the city through which the sewer passes, there are several buildings that are not connected with the latter.

Efforts were repeatedly made to compel the owners of those buildings to connect their properties with the sewer in order to improve their sanitary conditions.

The lack of sewer connection is partially remedied in the case of buildings made of strong materials by the construction of septic tanks; the other dwellings have the public midden sheds where sanitary pails are used for the reception of human wastes, which pails, once loaded, are substituted with empty ones and transported daily to the principal sewer pumping station where they are emptied, cleansed, and disinfected.

In places situated far from public midden sheds, the people hire and use sanitary pails from the municipal government, which are taken and changed daily by municipal laborers.

## 11. LICENSED BUSINESSES

One of the principal activities of the division of sanitation, Philippine Health Service, in the City of Manila, is the inspection of places intended for or are used as hotels, boarding houses, tenement houses, lodging houses, tiendas, stores, vessels or other water crafts, where cooked food or easily contaminated food meat or fish are for sale; saloon, barber shops, hair-dressing parlors, massage parlors, dermatological or similar offices, bath houses, bakeries, laundries, dairies, livery stables, and other public establishments mentioned in section 971 of the Revised Ordinances. No license for said places is granted by the city mayor without the favorable recommendation of the Health Service, which recommendation favorable or otherwise, is forwarded only after the places concerned have been duly inspected by the personnel of the Health Service.

In the following table are noted, by health stations, the total number of licenses acted upon during the year 1922:

Health stations	Number of licences acted upon		
	Approved	Disapproved	Total
No. 1, Intramuros .....	1,405	68	1,473
No. 2, Meisic .....	2,388	299	2,687
No. 4, Sampaloc .....	1,727	171	1,898
No. 5, Tondo .....	3,427	48	3,475
No. 6, Paco .....	1,032	63	1,095
Total .....	9,929	649	10,578

The preceding table shows that in the Tondo health district more license (3,475) than in any other district were acted upon during the year, 3,427 of which were recommended for approval. It was in Tondo where more inspection works were made during the year in connection with the granting of licenses.

## 12. TONDO FIRE

At the beginning of 1922, on January, two (2) disastrous fires in the Tondo health district left thousands of people homeless.

In order to prevent insanitary conditions in the burnt area, three camps were immediately established thereon, one at the Tayuman Street, on the ground situated east of the Rizal Primary School; one at Tioco Street and one on lots bounded by Osorio Street on the north; Velazquez on the east, Malvar on the south, and the seashore on the west.

On these camps, one hundred tents were erected, which were lent by the Military authorities and which were immediately occupied by the destitute people.

To each camp were assigned a doctor of the Philippine Health Service, a sufficient number of sanitary inspectors and nurses. The doctor was in charge of the work not only of the general sanitation, anti-cholera, and anti-typhoid injections, but of the medical or surgical attendance of the residents in the camp who might become sick.

The camps were supplied with potable drinking water. Systematic daily collection of garbage and rubbish was established and at the same time there were constructed temporary public midden sheds for the collection and disposal of human wastes.

The chief, division of sanitation of Manila, visited and inspected daily those camps to see whether or not the sanitary regulations were duly complied with.

## 13. CARNIVAL OF 1922

The Philippine Health Service, during the Carnival of 1922, performed the following activities under the management of a committee appointed by the Director of Health.

1. A Philippine Health Service parade, organized and attended by the staff, medical officers, sanitary inspectors, and other employees of the Service.

2. Preparation and exhibition in that parade of three allegorical floats, representing: (a) malaria and the campaign against it; (b) advantage and benefit of the anti-smallpox vaccination; (c) communicable diseases.

3. Preparation of one booth within the Carnival ground wherein have been exhibited the following displays:

(a) Diagram of different disease germs.

(b) Diagram of intestinal parasites.

(c) Diagram of the mosquito, its evolution, breeding places, diseases transmitted by it and the way to exterminate it.

(d) Diagram of the fly.

(e) Diagram of potable and non-potable water. Diagram of the microscope.

(f) Diagram of different closets.

(g) Diagram of sanitary cup.

(h) Two cartoons representing disastrous results of the ignorance of hygiene.

(i) Frames regarding general sanitation and activities of the Philippine Health Service.

In the interior of the booth were exhibited the following:

(a) Sanitary and insanitary barrio.

(b) Model of an artesian well.

(c) Sanitary model house, one complete and one under construction.

(d) Water demonstration by the microscope.

(e) Practical demonstration of vaccination.

(f) Plumbing fixture displays.

(g) Athletic goods display. Toilet articles.

(h) Food and drink display. Approved and disapproved by the Board of Food Examination. Rice display with indication of phosphorous content.

(i) Model child showing effects of vaccination.

(j) Model public bath and toilet house.

(k) Apparatus and other implements to catch flies and rats.

(l) Diagram showing general morbidity, mortality and birth rate.



(m) Public midden sheds.

(n) Forms used and bulletins issued by the Philippine Health Service.

(o) Health decalogue.

(p) Diagram showing the employees of the Philippine Health Service.

(q) Map of the Philippine Islands showing different health districts, sanitary divisions, hospitals and dispensaries.

(r) Boards of Hygiene.

(s) Pasteur's anti-rabic vaccine.

(t) Care of venereal disease in Manila.

(u) Antipolo system, practical demonstration.

(v) Statue of a laborer.

(y) Child sleeping under a mosquito net.

(z) View of Culion.

4. Organization of an emergency hospital and a health office in the Carnival ground for the inspection of food, soft drinks, tiendas, and restaurants therein.

The float representing malaria obtained first prize and also a first prize was awarded to the typical representation of the work being done and carried on by the Philippine Health Service; both prizes consisted each of a regular sized silver cup.

#### 14. PROGRESS IN 1922

During the year the following have been accomplished:

1. The prohibition for the sari-sari tiendas to serve drinking water. Thru it, was suppressed one of the most frequent means of spread of communicable diseases carried by water as cholera, typhoid fever, and dysentery.

2. The considerable increase of the Manila population actually protected against cholera and typhoid fever.

3. The prohibition of the ice-scraping by the old ice-scrapers used in the Manila "mongo con hielo" tiendas and other refreshment parlors, and the approval of modern, safe, and sanitary machines for scraping ice.

4. The decrease of insanitary lowlands by the filling up of many portions thereof with refuse in several districts of Manila.

#### 15. RECOMMENDATIONS

1. Increase of the personnel assigned to the work of anti-typhoid and anti-cholera injections, so that, before the end of the present year all the population of Manila be, without exception, entirely protected against typhoid fever and cholera.

2. Gradual substitution or replacement of temporary assistant sanitary inspectors with candidates who passed the Civil Service examination required for those positions.

3. Reorganization of the Division of Sanitation of Manila by dividing the city into (10) health districts in such a way that each new district shall have a population of 30,000 more or less. Each district shall have no less than two physicians and no less than 3 expert inoculators, the duties of the inoculators to consist exclusively of giving anti-cholera and anti-typhoid inoculation to the population of their respective districts.

# REPORT OF THE DIVISION OF PROVINCIAL SANITATION

[Dr. JACOBO FAJARDO, *Chief of Division*]

## GENERAL REMARKS

This report covers the general activities of the Division and contains the vital statistics of the same.

## ORGANIZATION AND PERSONNEL

Pursuant to the Administrative Order No. 11, paragraph 9, dated November 4, 1921, Dr. Jacobo Fajardo assumed the duties of the Chief, Division of Sanitation in the Provinces, relieving Senior Medical Inspector Eugenio Hernando. During the year, 257 municipalities of 32 provinces were inspected, and, among other things, it was found that the majority of presidents of sanitary divisions disregarded the educational campaign and the proper organization or arrangement of their offices. For the purpose of making the campaign for public sanitary education systematic and to have the offices and filing system properly arranged, Circulars U-12 and U-55 were issued. Circular U-12 contained an outline of topics for each conference or lecture to be given every week, the schedule covering a period of one whole year.

During the year, about 25,347 conferences or lectures were given in various municipalities and barrios, and about 90 per cent of the offices of presidents of sanitary divisions and sanitary inspectors were properly organized. To this phase of the work, special attention was given.

The status of the health organization of this Division remained essentially the same as that of the preceding year.

## VITAL STATISTICS

Specifications	1922 *	Average, previous 5 years 1917-1921
Population.....	9,055,940	8,627,599
Death rates per 1,000 population .....	20.14	27.22
Birth rates per 1,000 population .....	37.38	35.30
Infant mortality rates per 1,000 births.....	153.44	210.21

\* Excluding data of Palawan and Mountain Province since reports therefrom are not yet available.

Caution should be observed in studying the figures given in the foregoing table. The year 1918, included in the five-year

period used as control, had a disastrous pandemic of influenza which occurred in the latter part of that year besides other numerous outbreaks of cholera and smallpox which occurred sometime during the five-year period. We can reach, however, accurate conclusions by comparison with the vital returns of each individual year embraced within the five-year period.

Year	Specification		
	Death rate per 1,000 population	Birth rate per 1,000 population	Infant mortality rate per 1,000 births
1917.....	22.71	38.73	180.33
1918.....	39.01	38.01	246.51
1919.....	34.44	33.13	233.30
1920.....	20.98	37.57	156.00
1921.....	21.14	37.46	163.88

For control purposes, the year 1917, being a normal year, could best serve the purpose. A comparison of its vital returns with those of 1922 shows actual improvements in the death and infant mortality rates.

A decrease in the natality rate from that of 1917 is observed due to the decreased marriage rate brought about perhaps by the financial depression consequent to the Great War.

All in all, the general health conditions in the Division, as gauged by the current mortality rates, show satisfactory improvement over those of the last five years, which are attributable to the following factors:

(a) Steady spread of general education among the masses and consequent development of popular sanitary sense and culture.

(b) Efficient and prompt control of all outbreaks of communicable diseases.

A great deal is still left undone. While a death rate of 20.14 is about as near to ideal standards as we have been so far able to attain, yet it may be brought to still lower figures. The same can be said of infant mortality. Anything above a rate of 100 per 1,000 births is short of the standard which we are striving to attain.

#### EPIDEMIOLOGY

Diseases	1922		Average previous 5 years	
	Cases	Deaths	Cases	Deaths
Cholera.....	89	48	8,142	6,156
Typhoid.....	2,545	1,886	3,362	2,909
Dysentery.....	12,537	7,387	16,195	11,299
Smallpox.....	128	12	25,399	16,021

### CHOLERA

A total of 89 cases and 48 deaths occurred during the year. As compared with the figures for the previous five years, the improvement appears certainly substantial. The disease appeared in sporadic form, outbreaks being placed invariably under prompt control. The Provinces of Bantangas (27 cases with 15 deaths) reported the heaviest infections. The balance of the cases and deaths occurred in nine other provinces.

### TYPHOID FEVER

As compared with the incidence rate of the year 1921, the situation remained about the same, but shows improvement over the records of the first five years.

In this connection, mention must be made of the fact that the number of cases reported was perhaps smaller than the actual number since most of the cases that recovered were not reported to the proper health authorities.

### DYSENTERY

The situation during 1922 showed improvement over the figures for 1921 and for the last five years.

As in previous years, a seasonal increase of the incidence rate was noted during the rainy season, a phenomenon synchronous with the abundance of flies and pollution of water supplies by the frequent floods.

### SMALLPOX

The situation during the year covered by this report shows substantial improvements as compared with the records of 1921 and those of the last five years.

Smallpox is now under absolute control. Continued and extensive vaccinations, specially of the newly-born infants were instrumental in bringing about such satisfactory result.

### PROVINCIAL HOSPITALS

The same number of hospitals reported for 1921 remained in operation at the close of 1922. No new ones were established during the year.

Considerable anxiety was felt in the provinces with regard to the ultimate fate of the various bills submitted to the Philippine Legislature providing for the establishment of provincial hospitals. The need for such institutions has become quite acute in many provinces, specially in those lying far from

Manila and from the few provincial capitals which are fortunate enough to have hospitals. As people became better acquainted with health and sanitation, the demand for adequate medical relief has become correspondingly more insistent. Interest in the establishment of hospitals was awakened, and the members of the Philippine Legislature have taken the cue. Five or six hospital bills were consequently submitted for enactment, before the first session of the Sixth Philippine Legislature, in the month of October, 1922.

It has ever been the policy of the Insular Health Service to consider preventive measures as the primary motive of public health administration, curative medicine being given a secondary rôle. No one can gainsay, however, that hospitals do play an important part in health work as a supplementary activity and a powerful aid in attaining the ultimate ideals of public health. In this connection, the sense of proportion and proper values must be maintained. The Division will give its whole-hearted support to any hospital policy in so far as hospitals may serve to awaken public conscientiousness and interest in health and sanitation, and in so far as the existence of up-to-date hospitals, in as many provincial capitals or towns as can be provided with such institutions with the resources on hand, shall serve as a gauge of the progressive spirit of the Filipino people and of the openhandedness of this Government in matters concerning public health.

#### DISPENSARY SERVICE

Eight hundred eighty-six public dispensaries were in operation at the end of the year as may thus be shown:

Number in operations at the beginning of the year.....	861
Number opened during the year.....	36
Number closed during the year.....	11
Number in operation at the end of the year.....	886

A summary of the work done in these institutions of medical relief gives the following totals:

Consultations .....	154,388
Treatments .....	200,587
Operations .....	6,443
Domiciliary calls.....	47,429

#### DISTRICT NURSING

The work performed by the provincial district nurses gave the following totals: Abortions, 296; normal deliveries, 3,079; dystocias, 130; post-partums, 2,346; infants under two years attended, 12,856; public lectures, 1,520; private lectures, 15,995.

Of the most common causes of death, malaria, pulmonary tuberculosis, infantile convulsions, acute bronchitis, congenital debility, and infantile beriberi head the list in the order given.

#### VENEREAL DISEASE CLINICS

No special clinics for venereal disease were operated in the provinces during the year. With the exception of the neighboring army post and of large urban centers such as Iloilo and Cebu, prostitution is seldom found if existing at all. The few cases of venereal disease encountered were treated in the local dispensaries.

The district health officer of Pampanga reported a large number of gonococcus infection from the neighborhood of Angeles and Camp Stotsenberg. The latter place is a large army post, and for sometime past red-light districts have been in existence there, one near the Camp, another at Angeles, the same having been operated under regulations prescribed by Army and health authorities, respectively. The cases of gonococcus infection reported from Pampanga occurred among prostitutes and habitués of the prostitutes existing in that neighborhood.

#### YAWS AND TROPICAL ULCERS

Special clinics for yaws were operated in the Provinces of Bulacan, Ilocos Norte, and Rizal.

Yaws are not included in the list of reportable diseases.

As results of our experiences with yaws during the year, we submit the following conclusions:

(a) That contact infection plays an important rôle in the transmission of yaws.

(b) That the infection of yaws in certain section of this country is quite prevalent.

A total of 7,788 cases of tropical ulcers were reported for the year, and given treatment in municipal dispensaries, 6,324 were discharged as cured.

#### DENTAL CLINICS

During the early part of the year, Government dental service was inaugurated in the Province of Bulacan. Three other provinces—Cagayan, Laguna, and Nueva Ecija—followed the example. The original plan was to extend the service to other provinces as fast as appropriations and resources became available. In view, however, of the fact that the Philippine Red Cross had at the same time inaugurated a dental program for the provinces with ampler means and facilities, it was deemed best by this Service to refrain, for the time being, from carrying out the original plan so as to avoid duplication of the work.

The greater proportion of the patients treated in our dental clinics is constituted by school children. Indigents and persons entitled to free Government medical treatment were also among those given the benefit thereof. A summary of the work done in this connection is given below:

Patients treated:	
School children.....	4,890
Government employees.....	104
Indigents .....	24
Work done:	
Extractions .....	2,955
Fillings .....	961
Treatments .....	4,637

#### PROVINCIAL LABORATORIES

A total of 9,168 examinations were performed during the year, classified as follows:

Blood .....	3,496
Feces .....	706
Sputum .....	273
Water .....	134
Milk .....	89
Miscellaneous .....	4,470

As may be seen, the bulk of the work done in these laboratories was made up of clinical examinations, which redounded, after all, in the benefit of the community at large, in that facilities for establishing or verifying diagnoses were given to the local medical practitioners. More examinations are being done now, however, for sanitary purposes—feces, water, milk, etc., and the standard of work done has been elevated by detailing properly trained personnel in a good number of our provincial laboratories.

#### INSPECTION

[See Table A]

Constant inspections were made during the year in order to keep up to the required standard the sanitary condition of the municipalities and the health administration of the Presidents of Sanitary Divisions. The amount of work done along this line may be summarized as follows:

Number of municipalities inspected.....	3,011
Number of municipalities reinspected.....	1,143
Offices of Presidents of Sanitary Divisions inspected....	1,972
Offices of Presidents of sanitary Divisions reinspected..	760
Number of dispensaries inspected.....	2,550
Number of dispensaries reinspected.....	828



## WATER SUPPLIES

[See Table B]

New waterworks systems were installed in the following provinces: Cebu, 3; Oriental Negros, 4; Palawan, 4; Romblon, 1.

The artesian wells in operation at the end of the year gave a total of 2,527, one hundred eighty-five of which were drilled during the same, and 51 were closed for various reasons.

Thirty-seven (37) per cent of the population are now provided with safe water supplies—waterworks systems, artesian wells, and sanitary superficial wells.

The direct supervision over the maintenance of artesian wells and pumps, which heretofore has devolved upon provincial and municipal treasurers, was transferred to the district engineers, as a result of an agreement reached to by representatives of the Bureau of Public Works, the Executive Bureau, and the Philippine Health Service. Under the new arrangement, the up-keep and sanitary maintenance of such wells will, it is expected, show marked improvement.

## MARKETS AND SLAUGHTERHOUSES

[See Table C]

Twenty-nine new markets and 24 new slaughterhouses were built during the year. Five hundred sixty-six markets and 293 slaughterhouses were in operation at the beginning of 1922.

At the end of the year, 26.55 per cent of the markets and 38.17 per cent of the slaughterhouses were provided with water supply. The general conditions found in these public establishments were good, the collection of refuse being done regularly and the premises well kept.

Regular sanitary inspections were made of all markets to maintain sanitary conditions therein and to prevent the food-stuffs from being contaminated by flies and improper handling.

## GARBAGE COLLECTION

[See Table D]

The disposal of garbage is still unsatisfactory in most of the municipalities of this Division, the people persisting in this regard with their own way and convenience.

Municipal garbage collection is provided in 79 municipalities. Even in such towns, however, the systems employed are inadequate.

The fault lies partly in deficient local ordinances, which could be readily corrected by legislative enactment of a Sanitary Code, and partly in lack of funds.

## DISPOSAL OF EXCRETA

[See Table E]

For some years past, it has been the policy of this Division to extend the use of Antipolo closets as far as the resources of the people permit. In all instances when the installation of flush-closets was out of the question for financial reasons or otherwise, the use of Antipolo closets was recommended as the most satisfactory existing substitute, being cheap, efficient, and readily installed. The policy was but a support for the contention that with proper disposal of excreta, half of the battle against filth-born diseases can be considered as won.

Our efforts in this direction will be continued and intensified. The record for the year gave a total of 101,216 Antipolo closets and 2,421 septic-tanks newly built, certainly a better record than that of garbage disposal.

## MEDICAL INSPECTION OF SCHOOL CHILDREN

[See Table F]

The summary of the work performed during the year gave the following totals:

(a) Pupils examined.....	485,504
(b) Diseases found:	
Scabies .....	13,866
Enlarged tonsils.....	12,741
Conjunctivitis .....	6,193
Pertussis .....	91
Ulcers .....	5,787
Contagious diseases.....	7,221
Dental caries .....	75,258
(c) Pupils excluded.....	11,589
(d) Total treatments .....	48,150

As the case of former years, among the diseases found, dental caries, scabies, and enlarged tonsils head the list in the order given.

## PUBLICITY

The program of activities, which include lectures, exhibits, followed heretofore, has been radically improved by the adoption, for the field force, of a schedule of conferences, arranged so that a different health topic is dealt with each week. Thus, at any given date, health officers lecture on the same subject. The new schedule took effect on April.

A total of 25,397 lectures were given distributed as follows: 3,037 in schools; 12,288 in rural communications; and 10,072 in other places. The total attendance was about 530,249.

## Copy of the schedule is given under:

### POPULAR TOPICS FOR PUBLIC HEALTH INSTRUCTION

#### *April 1*

1. Philippine Health Service. Organization in brief. Functions and Duties. Prophylaxis and Immunization, *i. e.*, maintenance of health, prevention from diseases, and postponement of premature deaths. Appeal to the public to coöperate with the Service to carry out its aims; also to obey the laws, rules, and regulations pertaining to public health, and all municipal sanitary ordinances in force or may, from time to time, be enacted to meet the exigencies of the community.

#### *April 8*

2. How to maintain health. General and Personal Hygiene. Importance of cleanliness, general and personal. Cleanliness of back yards and premises. Proper disposal of human waste, garbage, and rubbish.

#### *April 15*

3. Domestic sanitation, "Cleanliness," the keynote. Location, drainage, and partitions. Light and ventilation. Bath and toilet facilities. Importance of sleeping with open windows—dangers from ill-ventilated room.

#### *April 22*

4. Personal hygiene. Care of mouth and teeth. Bathing. Benefits from rest, sleep. Calisthenics. Clothing. Care of bowels, and organs of special senses such as eyes, etc. Danger from coughing with open mouth and sneezing without handkerchief.

#### *April 29*

5. Isolation and quarantine. Dangers of contact with sick persons. Advisability of reporting to health authorities diseases occurring in each household.

#### *May 6*

6. Disinfection. Main object. Disinfection of human excreta and personal belongings of one affected with contagious disease.

#### *May 13*

7. Medical attendance. Its necessity in case of disease for the family and for the public. Economic value when health is safeguarded by medical advice.

#### *May 20*

8. Significance of public coöperation. Advisability of immediate notification of, at least, any communicable disease case, by any one in the family or in the neighborhood. Report of births and deaths as indices in the standard of civilization of a given locality.

#### *May 27*

9. Food sanitation. What constitutes "balanced" food? Importance of vitamins. Food poisoning. Disease germs and disease-producing food.

#### *June 3*

10. Milk. Its nutritional and caloric value. Constituents of the same regarding butter fat, solids not fat, etc. What is meant by pure, certified, or pasteurized milk? Is boiled milk safe?

*June 10*

11. Milk-born diseases, in general. Improper milking, careless handling and contamination by dirty utensils. Adulteration and fermentation. Prevention of diseases due to milk infection. Nutritional importance of butter-milk.

*June 17*

12. Beriberi, infantile and adult. Symptoms, prevention, and treatment—both mother and infant. Importance of the disease from an economic standpoint. Its significance (infantile form) also in the infantile mortality record. Advice to the prospective mothers and parturient women regarding the indigestion of foods or food products containing an abundance of the antineuritic vitamin (water-soluble-B).

*June 24*

13. Infant feeding and care. Methods of feeding and nature of sound infant food. Hygiene of babies fixing the cord, nursing, nipples, bottles, fresh air, bathing, cleanliness, apparel, etc.

*July 1*

14. Disease-producing germs. Mention the common ones. How do they produce the disease? In general how do we acquire the disease and how can we avoid its development.

*July 8*

15. Infection by direct and indirect contact with a contagious case. Danger in overcrowding especially during town "fiestas." How do we avoid such danger?

*July 15*

16. Peculiar habits and costumes in each locality. Dangers from the practice of "cañas," of misleading beliefs, and superstitions.

*July 22*

17. Care of patients with communicable disease. Disposal of nasal, skin, throat, bladder, and bowel discharges. Disinfection of patient's clothing and hands of attendant. Isolation of patients' mess equipments. In general, how can one avoid contamination, when necessarily in contact with the patient?

*July 29*

18. Water-supply. What constitutes potable water? Artesian well and sanitary dug well. Faucet water. Spring and surface wells. Location.

*August 5*

19. Water pollution—animal or human—at its source or in its course? Water-born diseases. How can the germs in the water be rendered harmless, at least, non-disease producing? Boiling and other adequate methods of water purification.

*August 12*

20. Soil pollution. Decomposition of organic matter. Improper disposal of manures and human wastes. Diseases that may be obtained from soil pollution and how can one prevent them.

*August 19*

21. Sanitary conveniences. Necessity of having sanitary toilet of the Antipolo system. Dangers from having improper disposal of feces. Simple methods of rendering human excreta innocuous.

*August 26*

22. Disease transmission. Mechanical and biological transmitters. Description in simple language, and illustration of how a disease is transmitted thru food, drinks, uncleaned habits, personal contact, droplets in the air, dust, bare-footedness, and other agencies. Examples and short description of each.

*September 2*

23. Domestic animals. Hogs, dogs, horses, etc. in relation to public health and in the transmission of parasitic and pathogenic germs.

*September 9*

24. The rôle of flies, mosquitos, and other insects in the transmission of diseases, blood, intestinal, and skin infection, etc. How is transmission accomplished—illustration and short description of infective agents. Their breeding places. How can they be exterminated.

*September 16*

25. Malaria. Illustration of the parasite, method of transmission, important symptoms, means of prevention, and cure.

*September 23*

26. Rabbits. How contracted. Prevention and Pasteur treatment. Illustration.

*September 30*

27. Cholera. Cause, mode of transmission, and prevention.

*October 7*

28. Typhoid fever. Cause. How contracted and how can it be prevented.

*October 14*

29. Dysenteries, amœbic and bacillary. Description and termination of each if untreated. Prevention and treatment.

*October 21*

30. Diphtheria. Location of infection, principal signs, how contracted, and how prevented, etc.

*October 28*

31. Tuberculosis. Early symptoms, mode of infection, curability, etc.

*November 4*

32. Whooping cough. Propagation and prevention.

*November 11*

33. Influenza. Pneumonia. Propagation and prevention.

*November 18*

34. Plague. Bubonic and pneumonic. Mode of transmission. Rat problem and rat campaign.

*November 25*

35. Leprosy. Importance of segregation. How contracted, how prevented, and how may it be treated.

*December 2*

36. Smallpox, chickenpox, and measles. Source of infection and method of prevention.

*December 9*

37. Vaccination. Cholera, typhoid, smallpox, toxin-antitoxin, etc.

*December 16*

38. Parasites. Intestinal such as round worms, tape worms, hookworms. Mode of infestation, and method of prevention. Skin such as tinea cruris and tinea circinata, d'obie itch, barber's itch, etc.

*December 23*

39. Carriers as potential dangers to community. Detection and treatment.

*December 30*

40. Mental hygiene. Puberty and sex hygiene. Venereal diseases such as syphilis and gonorrhea—the common cause of disabilities, physical defects, and other dreadful subsequent conditions.

The summary of the Service Healthmobile operations for the year is given on the following table:

Date	Town or place	Lecture and film subjects	Estimated attendance
<b>1922</b>			
February 16.....	Tayabas, Tayabas.....	Malaria, dysentery, typhoid fever and cholera.	700
February 17.....	do.....	Malaria, dysentery, typhoid fever, cholera and hookworm.	1,500
February 18.....	do.....	do.....	1,000
February 19.....	do.....	Malaria, dysentery, typhoid fever and cholera.	2,000
March 31.....	Lucban, Tayabas.....	do.....	600
April 1.....	do.....	Leprosy, hookworm and malaria.	1,200
April 2.....	do.....	Cholera, dysentery, typhoid fever.....	2,000
April 8.....	San Juan, Rizal.....	Children.....	1,500
April 16.....	Iloilo, Iloilo.....	Films (consumption).....	400
April 17.....	do.....	Cholera, dysentery, and typhoid fever.....	700
April 18.....	do.....	Malaria, hookworm and films.....	
April 19.....	do.....	Typhoid fever, dysentery, and cholera.....	1,500
April 20.....	do.....	Children and consumption.....	1,200
April 21.....	do.....	Culion Leper Colony and Lepers.....	1,200
April 22.....	do.....	Malaria, children, cholera, dysentery, and typhoid fever.	1,500
April 23.....	do.....	Malaria, hookworm and lepers.....	2,000
May 12.....	Dampol, Bulacan.....	Malaria, dysentery, typhoid fever and cholera.	300
May 18.....	Obando, Bulacan.....	Malaria, vaccination, dysentery, cholera, and typhoid fever.	

**CEMETERIES**

One hundred forty-three new municipal cemeteries were established during 1922, a record figure as compared with other years. The municipal councils are at least becoming aware of the need of providing burial grounds for the poor who are unable to pay the fees required at catholic cemeteries, and for

people of creeds other than the Roman Catholic. Considerable trouble has been experienced in the past in instances of death of non-catholics in localities where no municipal burial grounds existed, as the Catholic regulations were quite rigid and set against allowing burial in the catholic cemeteries except to members of that church. The greater majority of the municipalities of the division are not provided with non-sectarian burial grounds, and the instances cited above have, thus, become of rare occurrence.

#### RECOMMENDATIONS

1. Increase of district inspectors from three to five, and Manila should be their official headquarters.
2. No physician, nurse, or cirujano ministrante, even though meeting the necessary qualifications required by law, should be appointed president or acting president of sanitary division without before placing them under training in the Central Office for a week or two, to acquaint themselves, before assuming duties, with at least the important regulations of the Service, the sanitary laws, and with the preparation of reports required of presidents of sanitary divisions.
3. The holding at Manila a yearly conference of all available health officers including presidents of sanitary divisions.

TABLE A.—Inspections

Province	Number of municipalities inspected	Number of municipalities re-inspected	Offices of the fire station department inspected	Offices of the fire station department re-inspected	Dispensaries inspected	Dispensaries re-inspected
Abra.....	30	6	7	4	26	7
Albay.....	78	6	73	6	73	6
Antique.....	62	36	24	13	10	7
Bataan.....	34	6		34		
Batanes.....	44	24				
Batangas.....	36	32	59	26	93	32
Bohol.....	164	42	56	18	164	34
Bulacan.....	188	71	84	32	192	84
Cagayan.....	65	35	19	14	12	65
Camarines Norte.....	27	3	13	1	13	10
Camarines Sur.....	120	44	53	2	2	46
Capiz.....	18	8	8	2	18	
Cavite.....	69	32	44	26	68	36
Cebu.....	122	26	122	26	111	26
Ilocos Norte.....	76	17	28	7	75	17
Ilocos Sur.....	72	16	33	10		
Iloilo.....	94	41	46	25		
Isabela.....	42	2	24			
Laguna.....	95	56	18	3	72	23
La Union.....	111	49	24	16	57	10
Leyte.....	69	15	69	15	21	5
Marinduque.....	31	15	10	4	111	49
Masbate.....	18	11	2		30	15
Mindoro.....	42	115	33	24		
Misamis.....	62	24	25	16	18	7
Mountain.....	26	19	25	16	57	25
Nueva Ecija.....	38	54	9	7	17	25
Nueva Vizcaya.....	102	38	38	54	26	17
Occidental Negros.....	102	102	102	102	38	54
Oriental Negros.....	79	8	72	8	102	102
Palawan.....	11	17	79	17	77	17
Pampanga.....	112	8			11	8
Pangasinan.....	118	40	73	25	32	31
Rizal.....	346	23	118	23	56	10
Romblon.....	21	73	346	73	346	73
Samar.....	55	8	8	8	21	3
Sarangani.....	55	12	99	11	55	12
Sorsogon.....	48	48	48	48	48	48
Surigao.....	31	8	11	4	33	8

b Offices of Sanitary Inspectors.

a Offices of Sub-District Health Officers.



Tarlac.....	13	12	63	12	63	12
Tayabas.....	79	29	78	24	76	26
Zambales.....	28	10	14	6	28	10
Totals *	3,061	1,143	1,972	760	2,550	828

\* Including data of Misamis and Surigao.

TABLE B.—*Water supplies*

Province	Artesian wells				Sanitary dug wells				Waterworks			
	In operation at the beginning of the year	Drilled during the year	Closed during the year	In operation at the end of the year	Population served	In operation at the beginning of the year	Dug during the year	Closed during the year	In operation at the end of the year	Population served	In operation during 1921	In operation during 1922
Abra.....	24		3	21	17,843		720	95	3	812	78,601	1
Albay.....		1		1	500		25					1
Antique.....	172	11		183	51,278		28	1		26	4,602	1
Bataan.....							28			28	5,195	
Batanes.....	126	10		136	187,278		87	4		91	27,800	8
Batangas.....	38	2	3	37	48,459		116	9	10	115	10,714	5
Bohol.....	280	29	9	300	16,700		19	26	1	44	670	1
Bulacan.....	1			1	250		29	2,934		2,963	21,680	
Cagayan.....	5			5	3,004		186	275	15	446	15,176	
Camarines Norte.....	32	9	1	40	49,307		69	96	5	160	56,607	
Camarines Sur.....							121	24		145	166,939	
Capiz.....	77		3	74	162,345		294	167	2	459	471,554	20
Cavite.....	254	38	13	279	239,684		1,549	25		1,574	14,066	
Cebu.....	26			28	9,626		107	216		24	33,280	1
Ilocos Norte.....							23	1		24	61,794	
Ilocos Sur.....	15			15	5,746		42	16	1	57	18,813	
Iloilo.....							138			138	9,200	7
Isabela.....	166			166	149,991		138				60	
Laguna.....							1			1		
La Union.....	1			1	199		812	132	34	910	122,681	3
Leyte.....	2			2	10,604		23			23	2,074	
Marikina.....	9			9	3,314							
Mandana.....	10			10	5,200							
Masbate.....	12	1	2	11	4,835		163	7	4	166	2,439	5
Mindoro.....	1			1	3,520		143			143	11,051	
Misamis.....												
Mountain.....												
Nueva Ecija.....	68	25	2	91	82,728		58			58	14,400	
Nueva Vizcaya.....	56			56	4,232		177			177	14,838	
Occidental Negros.....	111	3	1	113	32,641		255	20	5	270	11,551	

\* See 1921 report.

b Only springs and stream water.

TABLE B.—*Water supplies—Continued*

Province	Artesian wells				Sanitary dug wells				Waterworks	
	In operation at the beginning of the year	Drilled during the year	Closed during the year	In operation at the end of the year	Population served	In operation at the beginning of the year	Dug during the year	Closed during the year	In operation at the end of the year	Population served
Oriental Negros.....	26	3	.....	29	59,462	456	194	28	22	224,238
Palawan.....	314	13	.....	327	128,316	5,411	.....	131	.....	6,100
Panganga.....	141	12	4	149	77,986	841	1	101	5,281	84,502
Pangasinan.....	174	14	2	186	176,225	29	17	8	38	31,426
Rizal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,553
Romblon.....	2	.....	.....	2	5,872	401	3	2	16	9,000
Samar.....	26	.....	.....	26	( <sup>a</sup> )	861	.....	.....	404	118,388
Sorsogon.....	.....	.....	.....	.....	.....	1,474	106	.....	861	( <sup>a</sup> )
Surigao.....	81	8	.....	89	( <sup>a</sup> )	104	23	26	1,580	66,802
Tarlac.....	141	4	7	138	31,860	413	7	4	101	( <sup>a</sup> )
Tayabas.....	2	.....	1	1	1,000	2,813	2	7	416	26,080
Zambales.....	.....	.....	.....	.....	.....	.....	.....	.....	2,808	12,610
Totals *	2,393	185	51	2,527	1,592,268	18,006	4,410	387	22,029	1,758,479
										82
										68

\* Not given.

\* Including data of Misamis and Surigao.

TABLE C.—*Sanitary markets and slaughterhouses*

Province	Number of markets in operation at the beginning of the year			Number of slaughterhouses in operation at the beginning of the year			Number of markets built during the year			Number of slaughterhouses built during the year		
	With water supply	Without water supply	Total	With water supply	Without water supply	Total	With water supply	Without water supply	Total	With water supply	Without water supply	Total
Abra.....	.....	.....	3	1	.....	1	.....	.....	.....	2	1	3
Albay.....	1	6	7	1	1	2	.....	1	1	.....	.....	.....
Antique.....	3	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bataan.....	4	5	9	1	.....	1	.....	.....	.....	.....	.....	.....
Batanes.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Batangas.....	10	6	16	4	4	8	.....	.....	.....	.....	.....	.....
Bohol.....	6	21	27	4	7	11	4	4	8	1	2	3
Bulacan.....	9	5	14	5	.....	5	.....	2	2	1	.....	.....

	2	12	14	9	1	1	1	1	1	1	10	14	24
Cagayan.....	2	12	14	9	1	1	1	1	1	1	10	14	24
Canarines Norte....	1	3	4	1	5	5	5	5	5	5	5	4	1
Canarines Sur.....		14	14	5	4	4	4	4	4	4	4	1	
Capiz.....		5	5	4									
Cavite.....		10	10	1									
Iloilo Norte.....	17	54	71	18	1	27	18	18	18	1			
Iloilo Sur.....	3	13	17	3	15	18	18	18	18				
Iloilo.....	3	15	18	12	19	14	14	14	2				
Isabela.....	3	46	49	5	5	1	1	2					
Lanao.....	4	4	5	2									
La Union.....	1	4	5	1	1	1	1	1	1	1	1	1	1
Leyte.....	2	7	9	3	8	11	11	11	1	1	2	1	3
Marinduque.....	4	4	4	2									
Masbate.....		3	3	2	1	1	1	1	1	1	1	1	
Mindoro.....	2	2	2	2									
Misamis.....	4	6	10	4	4	8	8	8	1	1	1	1	
Mountain.....	1		1										
Nueva Ecija.....	6	8	14	4	9	13	13	13	1	1	1	1	
Nueva Vizcaya.....		6	6	3	3	3	3	3					
Ocidental Negros..	5	13	18	2	4	2	2	2	1	1	1	1	2
Oriental Negros..	5	17	22	5	17	22	22	22					
Palawan.....	1	1	2		1	1	1	1					
Pampanga.....	15	4	19	3	1	3	3	3	1	2	2	2	3
Pangasinan.....	10	27	37	5	5	20	20	20	1	1	1	1	1
Rizal.....	8	18	26	6	5	11	11	11	1	1	1	1	1
Romblon.....	3	3	4	1		1	1	1	1	1	1	1	1
Samar.....	1	7	38	5	14	19	19	19	2	2	2	2	1
Sorsogon.....	4	4	4	1	1	2	2	2	1	1	1	1	1
Surigao.....	1	12	13	4	5	9	9	9					
Tarlac.....	3	9	12	3	6	9	9	9					
Tayabas.....	6	8	14	6	8	14	14	14					
Zambales.....	1	8	9	1	8	9	9	9					
Totals * .....	154	412	566	111	182	293	293	293	4	25	29	10	14

\* Including data of Misamis and Surigao.

TABLE D.—Garbage collection

Province	Municipalities having ordinances controlling collection and disposition of garbage	Municipalities having cars for collection of garbage	Municipalities which adopted the proposed ordinance on garbage collection suggested by the Director of Health	Remarks
Abra.....	8	1	1	Garbage disposed of by burning, burying, filling in low land, and throwing into the sea.
Albay.....				Some are pending.
Antique.....			4	
Bataan.....	1	1	1	
Batanes.....				
Batangas.....	12	5		
Bohol.....	36			Garbage either buried or burnt
Bulacan.....	14	1	2	
Cagayan.....	3	2		
Camarines Norte.....	5		4	
Camarines Sur.....	8	1	10	Some municipalities have no available fund to maintain requirement of ordinances.
Capiz.....	16	5		No fund.
Cavite.....	1	1	4	Modified and not enforced due to lack of funds.
Cebu.....	1	1	1	City of Cebu only.
Ilocos Norte.....	2	2	2	Laoag and Bacarra.
Ilocos Sur.....	4	2		
Iloilo.....	24	1	24	
Isabela.....				
Laguna.....	19	8	6	
La Union.....	1	1	1	
Leyte.....	26		3	
Marinduque.....	6	1		
Masbate.....	4	3		
Mindoro.....	15	2	2	
Misamis.....	3			Data taken from detail.
Mountain.....				
Nueva Ecija.....	5			
Occidental Negros.....	13	13		
Oriental Negros.....	1	1	1	
Palawan.....				
Pampanga.....	7	3	1	
Pangasinan.....		3		Data taken from detail.
Rizal.....	8	3	3	Some are pending.
Romblon.....	4	2		
Samar.....	3		2	
Sorsogon.....				
Surigao <sup>1</sup> .....				
Tarlac.....	11	4	6	
Tayabas.....	16	12	6	Some are pending; others no fund.
Zambales.....			1	
Totals*.....	277	79	94	

<sup>1</sup> No tabulation.

\* Including data of Misamis and Surigao.

TABLE E.—Disposal of excreta

Province	Antipolo system ordi- nances		Private			Public places, including markets, schools, hotels, and municipal buildings				Population served	Tempo- rary sani- tary closets atfes- tas		
	In force	Pend- ing	Antipolo system in use		Septic tanks in use		Antipolo system in use		Septic tanks in use				
			1921	Newly built	Total 1922	1921	Newly built	Total 1922	1921			Newly built	Total 1922
Abra.....	8		275	1,843	2,118			101	11	112		18,099	
Albay.....	13	5	15,021	2,156	17,177		1	137	124	261	6	25,750	
Antique.....	12	1	4,023	4,326	8,349		1	71	43	114		4,000	
Bataan.....	2	7	191	6	197		5	7		7	4	3,342	
Batanes.....	3		468	10	478		1	16	2	18	2	8,214	
Batangas.....	10	15	1,029	4,441	5,470		5	15	14	53	11	25,700	
Bohol.....	36		47,316	15,425	62,741		13	203	176	379	54	239,648	
Bulacan.....	11	11	537	3,82	619		80	184	23	207	11	21,110	
Cagayan.....	21		291	3,387	3,678		35	34	47	81	43	18,680	
Camarines Norte.....	8	1	152	1,680	1,832		82	43	7	50	1	18,495	
Camarines Sur.....	31		5,659	5,405	11,064		39	527	50	577	161	228,164	
Capiz.....	19	7	2,754	249	3,003		22	251	9	260	75	140,13,221	
Cavite.....	17	3	1,139	375	1,514		32	26	42	63	10	29,162,345	
Cebu.....	36	16	8,503	2,468	10,971		566	277	189	466	22	195,981	
Ilocos Norte.....	5	13	164	34	198		1	75	11	86	1	3,069	
Ilocos Sur.....	3		70	166	236		3	33	12	45	5	(b)	
Iloilo.....	25	12	2,670	3,708	6,378		9	275	40	315	381	95,362	
Isabela.....	13		4,132	2,756	6,888		4	29	33	62	35	(b)	
Laguna.....	26	2	2,178	1,191	3,369		501	55	18	55	14	42,820	
La Union.....	8	1	493	1,130	1,623		3	81	28	109	1	17,476	
Leyte.....	40	6	3,472	742	4,214		323	291	72	363	30	62,269	
Marinduque.....	6		5,672	1,036	6,708		20	26	1	27	4	26,313	
Masbate.....	3	2	7		7			49	3	49		(b)	
Mindoro.....	2	9	134	14	148		53	35	3	38	2	1,078	
Misamis.....	38		2,369	2,463	4,832		25	52	87	139	2	(b)	
Mountain Province.....	10	17	94	317	411		52	52	8	126	1	9	
Nueva Ecija.....	9		1,071	1,388	2,459		42	56	70	8	18	4,610	
Nueva Vizcaya.....	25		2,313	516	2,829		64	64	16	80		31,162	
Occidental Negros.....	22		9,669	3,587	13,256		232	205	104	309	3	98,911	
Oriental Negros.....	22		15,817	33,573	49,390		186	385	296	681	2	93,290	
Palawan.....	14		252	30	282		20	20	20	20	11	2,535	
Pampanga.....	14	2	910	917	1,827		136	5		5	2	12,655	
Pangasinan.....	15	13	651	293	944		2	86	37	123	3	27,242	
Rizal.....	26	1	11,422	5,421	16,843		293	69	36	105	17	83,018	
Romblon.....	2		25	194	219		1	13	1	14	7	8,064	

\* Not given.

b No tabulation.

TABLE E.—*Disposal of excreta*—Continued

Province	Antipolo system ordi- nances		Private						Public places, including markets, schools, hotels, and municipal buildings						Population served	Tem- porary sani- tary closets at fire- sta- s
	In force	Pend- ing	Antipolo system in use			Septic tanks in use			Antipolo system in use			Septic tanks in use				
			1921	Newly built	Total 1922	1921	Newly built	Total 1922	1921	Newly built	Total 1922	1921	Newly built	Total 1922		
Samar.....	10	10	120	78	198	31	6	37	211	76	287	6	2	8	37,405	15
Sorsogon.....	6	8	10,610	1,444	12,054	24	24	48	50	15	65	45	45	45	61,188	.....
Surigao.....	15	.....	20,983	427	21,410	9	9	18	74	6	80	7	7	7	6,086	.....
Tarlac.....	7	8	57	13	70	14	14	28	53	3	53	3	3	3	72,306	.....
Tayabas.....	20	9	8,287	288	8,575	919	52	971	59	2	61	13	3	16	9,196	31
Zambales.....	5	8	9	18	27	1	1	1	58	8	66	6	6	6	.....	.....
Total <sup>c</sup> .....	582	188	188,633	101,218	289,851	5,803	2,601	8,404	4,300	1,716	6,016	971	183	1,155	1,778,804	1,045

<sup>b</sup> No tabulation.<sup>c</sup> Including data of Misamis and Surigao.TABLE F.—*Medical inspection of school children*

Province	Number of pupils in- spected	Diseases found						Number of pupils excluded	Treated	
		Scabies	Tonsils	Conjunc- tivities	Pertussis	Ulcers	Conta- gious eye diseases		At dis- pensary	At home
Abra.....	5,610	4	144	.....	.....	99	251	2	158	16
Albay.....	22,063	309	69	25	.....	.....	2,709	483	1,228	361
Antique.....	9,626	96	186	84	.....	103	2,760	144	1,207	137
Bataan.....	3,805	79	15	.....	.....	53	1,178	29	113	.....
Batanes.....	668	43	94	10	.....	13	93	14	.....	.....
Batangas.....	10,688	570	893	56	2	13	3,306	11	1,508	3,458
Bohol.....	16,345	450	512	65	.....	112	1,783	123	916	670
Bulacan.....	21,362	182	576	130	.....	389	7,380	132	94	.....
Cagayan.....	10,983	147	67	77	.....	4	2,110	323	314	53
Camarines Norte.....	3,503	71	39	3	.....	67	387	.....	454	.....
Camarines Sur.....	11,781	68	234	571	.....	227	1,689	17	204	9
Capiz.....	20,168	916	144	558	4	47	1,862	2,637	2,462	501
Cavite.....	14,555	33	1,338	33	.....	40	2,416	478	143	149
Cebu.....	21,432	2,621	1,066	232	.....	90	1,022	590	2,004	121
Iloilo.....	9,286	1,065	1,107	118	.....	121	1,500	326	1,460	.....
Iloilo Norte.....	41	137	137	70	.....	101	871	197	633	100
Iloilo Sur.....	12,361	333	338	.....	.....	.....	219	.....	.....	.....

Iloilo.....	30,685	95	504	2,378	198	712	1,412	787	3,308	29
Isabela.....	9,202	225	487	13	9	5	2,441	393	244	1,305
Laguna.....	21,050	851	1,191	16	409	95	5,987	1,112	2,739	2,426
La Union.....	16,373	291	942	168	209	4	3,573	348	348	50
Leyte.....	21,848	339	588	50	617	61	1,986	159	732	172
Marinduque.....	2,679	12	43	3	38	1	282	1	56	1
Masbate.....	.....	13	17	.....	62	19	.....	35	111	.....
Mindoro.....	4,326	94	251	45	76	159	1,180	147	508	29
Misamis.....	7,329	231	181	17	11	366	618	216	71	.....
Mountain.....	7,722	526	112	86	10	13	393	29	1,299	161
Nueva Ecija.....	14,491	205	61	24	66	20	2,187	24	1,657	44
Nueva Vizcaya.....	4,593	20	16	13	.....	18	38	18	16	48
Ocidental Negros.....	14,733	375	286	448	328	625	1,795	625	914	9
Oriental Negros.....	12,361	126	118	130	190	900	615	36	1,674	152
Palawan.....	1,128	56	1	.....	8	.....	226	.....	22	.....
Pampanga.....	13,355	302	70	17	110	100	2,500	95	236	75
Pangasinan.....	27,777	914	583	68	628	37	3,117	1,341	1,823	370
Rizal.....	17,781	344	83	33	602	13	5,041	107	3,934	2,182
Romblon.....	3,065	70	.....	.....	92	.....	178	.....	90	.....
Samar.....	13,879	242	262	432	407	456	1,691	349	1,615	108
Sorsogon.....	5,403	72	48	1	139	.....	538	.....	260	.....
Surigao.....	3,447	180	35	51	37	23	263	37	165	108
Tarlac.....	15,832	420	20	12	137	12	3,090	129	846	56
Tayabas.....	13,885	663	813	50	329	33	5,188	208	818	234
Zambales.....	7,004	205	154	23	96	182	1,198	188	.....	.....
Totals <sup>1</sup> .....	485,504	13,866	12,741	6,193	5,787	7,221	75,258	11,589	35,016	13,134

<sup>1</sup> Including data of Misamis and Surigao

## REPORT OF THE DIVISION OF MINDANAO AND SULU

[Dr. SULPICIO CHIYUTO, *Acting Chief of Division*]

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### GENERAL REMARKS

In general, the sanitary condition of the Division during the year has been very satisfactory. With the close supervisory control by the health officers in carrying out the sanitary measures, the Division has not experienced an invasion of serious epidemic within the year. Sporadic cases of dysentery were reported in Agusan and Davao; but through the efforts of the district health officers of these provinces, the course of the infection was promptly put under control. The smallpox epidemic which has been wreaking havoc in the Provinces of Bukidnon and Misamis since 1919 devouring a great part of the population of these provinces was held in complete check and finally disappeared during the first week of the year.

One of the greatest difficulties which the health service of the Division underwent, especially during the second semester, was the apparent shortage of fund. This was especially true with the Provinces of Lanao and Sulu. At the middle of the year, overdrafts were noted in the different items of the allotment to the Province of Lanao, and to avoid further overdrafts that could not be covered by the balances of the other items of the allotment at the close of the year, an order was immediately given to limit the number of patients admitted to the hospital and to reduce the hospital personnel to the minimum number possible. The same overdraft was the main purpose of the undersigned going to Lanao on the first part of October of 1922. In the Province of Sulu, inspections by the sanitary inspectors and dispensary attendants were suspended during the latter part of the year due to lack of funds. In fact there was not even one of the provinces embraced in the Division that has not experienced this difficulty. While the health service in Mindanao and Sulu, in general, has been successful during the past years, it is not, however, amiss to state that the present sanitation implanted still leaves much to be desired. We were not able to introduce new activities in 1922, because, despite the actual overdrafts experienced during the previous year, the allotments



for almost all the provinces for the year have been reduced. It is worth mentioning that every possible means was resorted to maintaining at least the sanitary condition of the Division during the year to a normal standard.

In order that this office may be kept well posted in the epidemiological condition of each province, weekly telegraphic reports of communicable diseases and of total deaths by groups were required of the respective district health officers. The procedure, though very expensive, was very convenient and practicable in view of the topographical situation of the division and the apparent deficiency of mail service between the different places and the capitals of the provinces, and between the latter and Zamboanga, the administrative center of the Division.

To hasten the immunization of the population of the Division from smallpox, cholera, and typhoid fever, the attention of the district health officer has been invited by a circular of this office as quoted from the Director's Circular R-55, T-3, and page 62 of the Director's annual report for 1920 regarding vaccination; and the use of the combined anti-cholera and anti-typhoid vaccine has been generalized.

Since March, 1922, a new glycerinated vaccine (typhoid paratyphoid A and B and Cholera, Castellani's formula titrated 8 billion to c. c.) was used in single massive dose. This was done to confer a double immunity on vaccinated persons with lesser work and trouble. With its use, no accident (even the slightest local infection) could be cited except a stronger reaction, which may be overbalanced by the probably greater and longer immunity it confers. All the anticholera and anti-typhoid vaccine used in the division were manufactured by the Zamboanga Central Laboratory.

In view of the strict policy of economy as directed in various circulars of the Director of Health, this office made a strict supervision of the expenditures of the funds of the different provinces of the Division. Hospital expenditures were scrutinized, and recommendations for increase of salaries were disapproved except in unavoidable cases.

#### SANITARY ORGANIZATION

In general, the sanitary organization of the division did not differ from that of the previous year. A gradual exchange, however, of its personnel occurred during the year, the central office having been badly affected. About the middle of the year, Division Chief Hernando has been selected for scholarship in the United States. As a result of this, the district health officer of Zamboanga has been assigned as Acting Chief of the Division

besides his regular duties in his province. Immediately following this event, the chief clerk of the Division was transferred to the central office, and the senior clerk was assigned in his place. Shortly after, the property clerk was transferred to the Davao Public Hospital to fill the vacant position of superintendent, and later on, the record clerk resigned because the recommendation for his promotion had been twice disapproved. Notwithstanding an entirely new staff, the clerical work of the Division did not suffer owing to the close attention and diligence displayed by the new force to maintain the efficiency of previous years. The following are the changes in the physician's personnel during the year:

Medical Inspector Julian Pilares was assigned as district health officer of Lanao, effective June 2, 1922.

Medical Inspector Enrique Ochoa, district health officer of Lanao, was transferred to the Division of Sanitation in the Provinces, effective June 5, 1922.

Medical Inspector Jose M. Raymundo was transferred from the Division of Sanitation in the Provinces and was assigned as district health officer of Agusan, effective August 21, 1922.

Senior Surgeon Antonio Fernandez was transferred from district health officer of Agusan to district health Bukidnon.

Dr. Antonio Rubin was separated from the position of acting district health officer of Bukidnon, effective September 9, 1922, with satisfactory service.

Dr. Manuel Burgos, president of sanitary division of Isabela de Basilan, Zamboanga, resigned, effective May 31, 1922.

Dr. Esteban A. Fabie was appointed president of the sanitary division of Glan, Cotabato, effective April 13, 1922, and resigned therefrom on November 11, 1922.

Dr. Arturo Francia was appointed president of the sanitary division of Pikit, Cotabato, effective February 22, 1922.

Dr. Cesar Ramos was appointed president of the sanitary division of Dipolog, Zamboanga, effective June 26, 1922.

Dr. Rufino Publico, resident physician of the Butuan Public Hospital, was transferred to the Bayombong Hospital.

Dr. Simeon Santayana, resident physician of the Butuan Hospital, was transferred to the Province of Tayabas.

Dr. Isidro Mendoza, president of the sanitary division of Dipolog, Zamboanga, resigned, effective May 31, 1922.

Dr. Jose P. Rosales, special medical inspector at Mati, Davao, resigned, effective May 15, 1922.

In view of the fact that competent applicants hesitate to come to this Division to take part in our educational sanitary campaign and because of the very low salaries offered, many positions, especially presidents of sanitary divisions, still remained unfilled. The lack of nurses is still being felt but this problem can undoubtedly be solved after the graduation of the senior class (course

1923-1924) of the Zamboanga General Hospital Training School for Nurses.

A new sanitary division comprising the municipalities of Margosatubig, Dinas, Cabasalan, and Labañgan was established in the Province of Zamboanga.

The following table shows the staff and sanitary organization of the Division at the close of the year:

<i>Chief of division</i>	
Dr. SULPICIO CHIYUTO (Acting)	
<i>Bacteriologist</i>	
Dr. CRISTOBAL MANALANG	
<i>Chief Clerk</i>	
LOPE TAYAO (Acting)	
<i>Laboratory Assistant</i>	
JUSTINO CANDA	
<i>Clerks</i>	
PABLO C. FELICIANO	CIPRIANO O. ORBECIDO
CIRILO TOLENTINO	
<i>Machinist</i>	
ANDRES GAGA CRUZ	
<i>Field Dispensary Attendants</i>	
Severino Velario	Severino Hamac
Tranquilino Feliciano	Gregorio Tarro
Florentino Manuñas	Mateo Salon
Julian Garcia	Ramon Morales
<i>Messengers</i>	
Mauricio Navarro	Demetrio Jamero
<i>Laborer</i>	
Ambirani Mustafa	

#### VITAL STATISTICS

The population of the Division as of July 1, 1922, was 1,191,655.

*Deaths.*—Comparing the death rate of the Division during 1922 with that of the past five years ending 1921, a remarkable decrease can be noted, the former being 8.47 and the latter 10.17 per 1,000 population. This decrease was obtained partly through the constant efforts of the officers and employees of the Service to improve the environmental conditions of the population by inducing the people to a sanitary mode of living, and partly to the direct medical relief work. With the exception of the Provinces of Cotabato and Surigao, all the rest had lower death rates in 1922 in comparison with the average of the past five years.

*Births.*—The birth rate was in 1922 greater than the average of the past five years, the former being 14.85 per 1,000 population and the latter 13.24. With the exception of Bukidnon, all the provinces embraced in the division have given considerably increased number of births during the year as compared with that of the average of the past five years.

*Marriages.*—It will be noted that the marriage rate showed a very slight decrease during the year, it being 6.39 against 7.56 during the past 5 years. This was due to the decrease in the Province of Bukidnon, Cotabato, Davao, and Sulu. The apparent lack of officials in these provinces authorized by law to celebrate marriage, the poor living conditions, the lack of women of competent age in some places, the ease of securing Mohammedan girls to live with and the deficiency of recording marriages, all account for the decrease.

*Infant mortality.*—As a whole, the infant mortality of the division was remarkably lower in 1922 than the average of the past five years (the rate of the former being 154.65 per 1,000 births and the latter 225.93). Though a big difference could be noted between these two figures, it should be stated that we have not yet gone down to the normal level of infant mortality. Our pressing need for more personnel, especially district nurses, to pursue an effective and extensive educational campaign could not but be cited, but with our very limited funds for the vast territorial extension of the Division with the numerous activities being undertaken by the Service, no amount could be set aside for more personnel, hence very little could be done to reduce the infant mortality of the division. Gastro-intestinal troubles, respiratory diseases, lack of care, beriberi of infants, etc., are the causes of our infant mortality. The ignorance of the mothers as to the proper care of their babies, the improper way of feeding and premature marriages, account for the prevalence of these diseases. In the Provinces of Bukidnon and Cotabato, the infant mortality rate was higher than that of the past five years; this may be explained by the custom of the Mohammedan natives to feed their small babies with banana, corn, cassava, etc. It should be mentioned that the puericulture centers and women's clubs established in some of the provinces of the Division helped to attain the decrease in the general infant mortality.

*Deaths without medical attendance.*—Except the Provinces of Agusan and Cotabato, the deaths without medical attendance in all the provinces embraced in the Division during the year were comparatively lower than the average of the past five years.

This was probably due to the gained confidence of the inhabitants in the modern methods of treatments. The Province of Cotabato's handicap in this respect was its vast extension with poor ways of transportation and communication which prevented the people to have free access to the health stations.

#### EPIDEMIOLOGY

From the standpoint of epidemiology, the year 1922 turned out to be better than the previous years. The procedure of weekly telegraphic reports of cases and deaths introduced at the beginning of the year and the effective and extensive campaign of immunization against cholera, typhoid and smallpox undertaken, coupled with the constant efforts of enlightening the people towards sanitary mode of living, account in great measure for this success. The cases and deaths from dangerous communicable diseases which caused the death rates in the Division to swell during the past five years have remarkably decreased in 1922. As soon as one case and death from cholera was reported in Davao, suppressive measures were at once taken to avoid the propagation of the disease, altho subsequent investigation conducted afterwards disclosed that it was a ptomain poisoning. The cases and deaths from typhoid fever have also been reduced. The continuation of the smallpox epidemic in Misamis and Bukidnon caused seven deaths from the cases registered in the latter part of 1921. In Zamboanga, one case with no death was reported in February, 1922, but the immunization of the inhabitants by anti-smallpox vaccination and other precautionary steps, stopped the propagation of the disease. Sporadic cases of influenza with relatively few deaths (the latter being due chiefly to pulmonary complications) were similarly registered. In the Provinces of Agusan and Davao, cases of dysentery were reported; in other provinces, the incidence and death rates were comparatively lower than the average of the past five years. It should, however, be stated that though, as a whole, our incidence and death rates from dysentery were comparatively lower than those of the average of the past five years, the diseases as well as other water-born diseases will have to remain a problem unless the bigger part of our population, still using rivers, lakes, springs and other polluted waters for domestic purposes, are provided with a safe water supply; but unless liberal appropriations is given us, very little toward this end will be accomplished. Undoubtedly the decrease of the cases registered in 1922, was due to the untiring efforts of the personnel of the Service to generalize the use of the Antipolo system of closets in the Division.

The following shows the deaths from the above-mentioned diseases in 1922 compared with the average of five years ending 1920:

	Deaths in 1922	Average deaths past five years
Cholera.....	0	852
Smallpox.....	7	1,529
Typhoid.....	41	331
Dysentery.....	380	619

#### MOST COMMON CAUSES OF MORTALITY

As in previous years, malaria was the most predominant cause of the general mortality. The decrease, however, of deaths from the disease during the year was very remarkable, 1,993 deaths having been recorded during the year as against 3,593 the average for the past five years. The existence of malaria in the Division may be explained by the vast territories of uncultivated lands abounding in swamps and stagnant waters which favor the breeding of mosquitoes. The Provinces of Misamis and Davao recorded the biggest number of deaths from the disease. Undoubtedly this was due to the procedure of the planters in those provinces to build their houses inside the abaca plantations which were proven to be ideal mosquito breeding places. The leaves of the abaca plant hold water sufficient enough to allow in them the development of thousands of mosquitoes.

Infantile beri-beri, broncho-pneumonia, acute bronchitis, congenital debility, diarrhœa and enteritis, and convulsions, were the most common causes of mortality.

Generally speaking, however, the number of deaths from the foregoing diseases were comparatively lower than those of the average of the past five years.

#### VACCINATIONS

*Anti-smallpox.*—A total of 108,449 anti-smallpox vaccinations were performed during the year. Out of the 72,590 inspections made, 39,134 were positive, giving 53.91 per cent of "takes." It will be noted that only about 66.93 per cent of the total vaccinations were inspected. This is explained by the difficulty of performing the inspection, because of the nomadic way of living of the Mohammedan natives and the difficulty of communication. The use of dry vaccine has been preferred to in remote places and where transportation facilities were difficult or irregular; and the fresh vaccine only in places where ice was available for its preservation. The low percentage of "takes" may be attrib-

uted to the occasionally defective classifications made by the sanitary inspectors in determining or distinguishing positive vaccinations from slight reactions. Besides this, some of the persons vaccinated had already previous successful vaccinations.

*Combined anti-cholera and anti-typhoid vaccinations.*—A total of 27,704 combined anti-cholera and anti-typhoid vaccinations were performed during the year, 14,492 of which were performed among adults and the rest among children. Oppositions from this important sanitary measure were sometimes observed but owing to the excellent result obtained during the past years, it received encouragement during 1922. It should be mentioned that the method confers a double immunity with lesser trouble.

#### MEDICAL RELIEF

In attaining the success of the Health Service of Mindanao and Sulu, our hospitals and dispensaries established in the different provinces which were gradually gaining popularity were our best material or attraction. Besides providing direct medical relief work, they played a big part in enlightening the masses of the people. Patients were brought to the hospitals and dispensaries. After the necessary treatment, instructions were given them and their companions regarding the preventive measures against diseases and the benefits of better modes of living. The instructions may not have been very effective especially with the Mohammedans but the direct medical relief and its efficacy, at least, has impressed them of the good aim of the Service. In the heart of an ignorant population, which is scarcely beginning to realize the benefits of an ideal and sanitary way of living, preaching and instruction are of little value in inducing the people without demonstrating them directly its benefits by a clear example, which, as far as the Service is concerned, is shown in its extended medical relief work. Without this, very little could be attained. While it is noteworthy that our hospital and dispensaries in the Division have considerably gained the patronage of the people, it is, however, to be regretted that owing to the lack of funds, on many occasions, patients had to be refused admission into the hospitals; this handicapped our work. In the Province of Agusan, it was reported that the dispensaries in the municipal districts did not function, as they should, due to the shortage of fund. Not one of the other provinces embraced in the Division had not mentioned the same said state of affair.

*Hospitals.*—As in previous years, the hospitals of the Division are located one in each province, except Zamboanga which

has two. The construction of the operating pavilion of the Zamboanga General Hospital has been suspended at the close of the year, because the amount appropriated for its construction became exhausted. A reappropriation of ₱5,800 would be necessary for its completion. The necessary amount for the construction of the nurses' cottage and dispensary buildings of the hospital has been secured from the provincial fund and made available at the close of the year, and the construction has already been started. In the Davao Public Hospital, the administrative office and hospital dispensary were temporarily quartered in the nurses' dormitory due to lack of space. It is indeed amazing that despite the limitation of patients undertaken by most of the hospitals of the Division, the number of admissions during 1922 far exceeded that of the previous years.

As one routine work in the hospital, admitted patients were microscopically examined for malaria and intestinal parasites, treating those positives before being discharged. To do away with the present chenopodium treatment that compelled us to keep the patients for a considerable length of time by giving them from two to three consecutive treatments before they could get rid of the disease, it became advisable to supply our hospital with more effective medicines such as carbon tetrachloride.

The San Ramon Penal Farm Hospital, as in previous years, has been under the charge of a senior surgeon of the Service with a male nurse paid by the Bureau of Prisons.

The principal cases of morbidity in the hospital were gastrointestinal disturbances, respiratory diseases, malaria, dysentery, and beri-beri; and the mortality was from bronchitis group, tuberculosis, malaria, and gastro-intestinal disturbances. The following is the comparative table of the admissions by hospitals. It will be noted that the admission in the Lanao Public Hospital during 1922 was smaller than that of 1921; this was perhaps due to the strict limitation of patients admitted to prevent an overdraft.

#### HOSPITAL ADMISSION

	Number of patients	
	1921	1922
Butuan Public Hospital.....	316	342
Cotabato Public Hospital.....	445	550
Davao Public Hospital.....	593	670
Lanao Public Hospital.....	688	525
Sulu Public Hospital.....	880	924
Zamboanga General Hospital.....	1,149	1,190
Rizal Memorial Hospital.....	524	682
San Ramon Penal Colony.....	308	1,009
Totals.....	4,903	5,892



*Dispensaries.*—Our dispensaries, though, in general, not liberally supplied with medicines, were more patronized during 1922 than the year before. This is explained by the remarkable increase of consultations.

At the beginning of the year, 74 dispensaries were in operation, 14 were opened, and two were closed, leaving 86 altogether in operation at the end of the year. This number is entirely inadequate, taking into consideration the vast territorial extension of the Division, coupled with the difficulties of transportations and communications between the scattered inhabitants and the public dispensaries. The following shows the number of dispensary cases and treatments during the year:

*Consolidated report of dispensaries*

Provinces	Cases	Treatments
Agusan.....	4,149	7,055
Bukidnon.....	2,044	6,837
Cotabato.....	20,178	57,237
Davao.....	7,997	27,464
Lanao.....	8,679	17,072
Sulu.....	44,023	75,912
Zamboanga.....	4,416	11,961
Totals.....	91,486	203,538

*Public health nursing and social service.*—With the work done by our present inadequate number of district nurses in the Division, this Service has not accomplished more than what little part was contributed by some of our officers and employees during their leisure in endeavoring to enlighten the people towards the necessity of pre- and postnatal care of mothers and prospective mothers. In the town of Cotabato, Province of Cotabato, this work was being attended to by a nurse of the Cotabato Public Hospital during her leisure. There was, however, two women's clubs in the province helping to promote the infant welfare. A baby contest was held in the municipality on December 29, 1922, under the auspices of the Cotabato Women's Club. In Davao two baby contests were also held, one in Mati under the auspices of the Mati Women's Club and direction of the President of Sanitary Division, and another in the municipality of Davao under the auspices of the Davao Women's Nurse of the municipality. A puericulture center has been organized there by the Davao Women's Club. The center holds consultations for babies once a week and gives lectures to mothers who attend. In the municipality of Zamboanga, a

puericulture center has also been organized by the Women's Clubs of the municipality at the middle of the year where officers of the Service were requested on many occasions to give public lectures. About the third quarter of the year, a public dispensary was opened.

#### ZAMBOANGA GENERAL HOSPITAL TRAINING SCHOOL FOR NURSES

Since its establishment in 1921, the Zamboanga General Hospital Training School for Nurses was steadily gaining popularity. This is explained by the gradual change of impression of the people in this part of the Islands, who then looked upon nursing as an inferior profession. People who formerly thought the boys and girls entering the school for nurses as being degraded and demoralized, no longer entertain the idea but are now beginning to realize the importance of a nurse's services both to the individual and to the community.

During the first semester, there were 30 students in the school, 14 probationers and 16 intermediates or second year students, and during the second semester one was dropped for failure to pass the probationary period. There were 13 probationers promoted to juniorship and 16 first semester intermediates to second semester intermediates.

Strict disciplinary measures were always enforced. Offences of whatever nature were investigated properly at all times and the offenders dealt with accordingly. As a rule, for small offenses, reprimands, demotions, apology, and deprivation of dormitory privileges were enforced. For grave offenses where separation or suspension of the students was necessary, the cases were referred to the staff committee.

As a part of their physical education, which is included in the curriculum of the school, all students were required to play indoor baseball, basketball and calisthenics; and in order to give them social intercourse with their friends and members of their family, receptions, dances, and tea parties were held in the different dormitories. A big Christmas tree was placed in the Sunken Garden of the hospital where bags of candies and toys were given to all. Literary programs were held among them once a month for the purpose of giving them training for public lectures and speeches.

There were very few cases of sickness observed among the students. During the entire year, only 3 of them were admitted in the hospital. As a routine precaution, all new students were inoculated with combined typhoid and cholera vaccine and vaccinated with smallpox vaccine virus.

The following table shows the number of students in the school by provinces with their status:

Provinces	Number of students		Total
	Junior	Inter-mediate	
Agusan.....	5	1	6
Leyte.....		1	1
Misamis.....		2	2
Occidental Negros.....	1		1
Pampanga.....	1		1
Sulu.....		1	1
Surigao.....		3	3
Zamboanga.....	6	8	14
Totals.....	13	16	29

### LABORATORIES

The number and status of our laboratories remained the same during the year. With the exception of the Zamboanga Central Laboratory, only routine examinations were performed in the different laboratories due to the lack of proper equipment and well trained technicians. The more delicate examinations such as surgical pathology, Wasserman reactions, and opium and blood identifications, were performed in the Zamboanga Central Laboratory. This laboratory manufactured all the combined anti-cholera and anti-typhoid vaccine for the whole division and furnished all the media and other reagents to other laboratories.

In order that all the laboratories might be of more service to the public, the different district health officers were required to send one of their best technical employees to the Zamboanga Central Laboratory for training from three to six months in laboratory work, sanitary bacteriology, and the preparation of culture media. These employees were furnished subsistence and quarters in the Zamboanga General Hospital chargeable against the funds of their respective provinces.

#### *Laboratory work—specimens examined during the year*

Province	Blood	Feces	Sputum	Water sample	Milk sample	Others	Total
Agusan.....	79	94	9			85	267
Cotabato.....	80	327	13			308	728
Davao.....	226	1,445	33	16	1	508	2,229
Lanao.....	44	398	3			326	771
Sulu.....	69	489	23			412	993
Zamboanga Central Laboratory.....	39	476	8	73		480	1,076
Total.....	537	3,229	89	89	1	2,119	6,064

### YAWS CAMPAIGN

With the exception of the Province of Bukidnon, campaigns against yaws have been carried in every province of the Divi-

sion. These campaigns were not, however, carried out thoroughly on account of the lack of personnel to be exclusively assigned for their supervision. In the Province of Bukidnon absolutely nothing was done; this was due to the absence of a full-time district health officer to supervise the work, the present District Health Officer having been assigned there only at the latter part of the year.

TABLE.—*Yaws Campaign*

Province	Status	
	Adult	Children
Agusan.....	19	35
Bukidnon.....		
Cotabato.....	149	127
Davao.....	115	215
Lanao.....	33	29
Sulu.....		
Zamboanga.....	20	88
Totals.....	336	494

## GENERAL SANITATION

*Inspection.*—As was already stated elsewhere in this report, sanitary inspections were curtailed or entirely suspended in some of the provinces especially during the last quarter of the year on account of shortage of funds and to avoid incurrence of overdrafts in our appropriations. The Chief of Division has made several inspections to some of the provinces of the division during the year to settle matters beyond the reach of the district health officers.

Inspection of schools and school children constituted a part of our work. Some of the schools in the division were not found satisfactory. This was especially true in the Moro settlements of Cotabato where the size of the desks, especially the lower grades, was not adaptable for the public, and caused the pupils to sit improperly. The ventilation in the school rooms was very unsatisfactory and overcrowding was noted in Ladingan and Hilatingan Elementary Schools. The toilets were in a very poor sanitary condition and of very undesirable type.

The most prevalent diseases found among school children were trachoma, tonsilitis and tooth caries; and efforts were made to have them treated in the hospitals and by other possible ways. The district health officer of Cotabato made an arrangement with provincial governor to grant "courtesy transportation" to the pupils suffering from trachoma on the *s. s. J. H. Hall* from their places of residence of Cotabato for treatment and return.

The district health officer of Zamboanga also made a request to the division superintendent of schools to secure a dental surgeon for the numerous pupils in his province suffering from dental caries. To this end, a Red Cross dentist was exclusively assigned in his province.

It is worth mentioning that Red Cross nurses were assigned in many schools of the Division to look after the health of the school children. Their mission, it is believed, would be of paramount importance.

The attention of the service has been focused in the abatement of mosquito breeding places, collection of garbage and rubbish and other minor nuisances. During the year, a total of 3,600 sanitary orders were issued, 2,950 of which were complied with.

*Water supply.*—One of the most difficult problems of the Service in the Division of Mindanao and Sulu still remains unsolved; this is to provide the entire population of the Division with safe water supply. To be able to do this, very liberal appropriations will be required. In some of the provinces, water works were constructed and artesian wells drilled. They were, however, so inadequate in number that only those living near them, which constituted a small part of the entire population, could be actually served. In other places where these water sources were not in existence, the people used rivers, lakes, springs, and other easily polluted surface waters for domestic purposes. Some very costly methods of collecting rain water was also being adapted but this was common only among well-to-do people. To safeguard the people from waterborn diseases, periodical bacteriological examinations of some water supplies were done. During the year, 89 samples of water were examined in Zamboanga and Davao.

*Markets and slaughterhouses.*—All the provinces, especially their capitals, were provided with sanitary markets and slaughterhouses of permanent types some of which were provide with water supplies. Sanitary inspectors were assigned to look after their sanitation and the sanitary methods of selling foodstuffs. Screening of cooked foods was made compulsory, handling prohibited and deteriorated foodstuffs condemned. Animals intended for human consumption were subjected to *ante* and *postmortem* examinations. In some municipal districts, semi-permanent types of markets were in operation and in other more remote places temporary types were being utilized.

*Disposal of garbage.*—In some of the municipalities, the disposal of garbage was very satisfactory, because there were employees exclusively assigned to the work or in their absence, prisoners were obliged to do it. In other municipalities, however, where none of them could be availed, due to some reason or other, garbage and rubbish were being disposed of by burning or burying them by owners of the houses.

*Disposal of sewage.*—Three approved types of sanitary disposal of sewage were being used in the Division of Mindanao and Sulu and these were septic tank, pail and Antipolo system of toilets. Generally, in the capitals of the provinces and other organized municipalities, septic tanks and pail systems were used, in other places the Antipolo system of toilets. Some other kinds of privies, which were of the unapproved types, were being used in remote places, and still some Mohammedans followed their old way of sewage disposal. It can be said, however, that in general the disposal of sewage now in the division is far better than that in previous years.

#### RECOMMENDATIONS

1. The admission of Non-Christian Intermediate graduates in the school of nursing in view of the difficulty of obtaining first-year students.
2. Establishment of a course of midwifery in addition to the school of nursing in the Zamboanga General Hospital.
3. Establishment of a school for sanitary inspectors in the Division of Mindanao and Sulu in connection with the Zamboanga General Hospital.
4. Acquisition of an additional fund of ₱6,000 for new students. (The amount of money allotted to the school last year for its maintenance was just enough to maintain the first- and second-year students who are in attendance at the present time.)
5. Acquisition of necessary funds to replace the surgical instruments in some of the hospitals of the division, some of which are now in a deplorable condition not having been changed since the organization of the Division of Mindanao and Sulu.
6. Acquisition of an amount of ₱10,000 for one X-ray apparatus for the Zamboanga General Hospital.
7. The establishment of a circulating library to consist especially of medical journals so as to keep our officers up-to-date.

*Medical inspection of schools*

Province	Number of schools inspected	Number of pupils inspected	Number of schools not inspected	Number of pupils not inspected	Disposal of excreta			
					Antipolo	Septic tank	Pail system	Other systems
Agusan .....	64	3,738	13	3,827	54		2	2
Bukidnon .....	15	569			15			
Cotabato .....	52	1,351		66				
Davao .....	33	2,062	60	3,645	31	1	7	12
Lanao .....	16	1,739	50	521				
Sulu .....	20	3,520						
Zamboanga .....	22	3,015	5		16	2	3	1
Totals .....	222	15,994	128	8,059	116	3	12	15

Province	Artesian well				Sanitary dug wells				Waterworks			
	In operation at the beginning of the year	Drilled during the year	Closed during the year	In operation at the end of the year	Population served	In operation at the beginning of the year	Dug during the year	Closed during the year	In operation at the end of the year	Population served	In operation during the year 1922	In operation during the year 1921
Agusan.....	17			17	8,166	4	1	1	4	2,229	1	1
Bukidnon.....											9	12
Cotabato.....						7	1		8	2,550	1	2
Davao.....	3		1	2							2	2
Lanao.....						1	2		3		1	1
Sulu.....						33	37		33	13,171	1	1
Zamboanga.....												
Totals.....	20		1	19	8,166	45	41	1	48	17,950	15	18



## Sanitary markets and slaughterhouses

Province	Number of markets in operation at the end of 1921			Number of slaughterhouses in operation at the end of 1921			Number of markets built in 1922			Number of slaughterhouses built in 1922		
	In force	Pend- ing	Antipolo system ordinances	Private			Public places, including markets, schools, hotels, and municipal buildings			Temporary sanitary closets at fiestas		
				Antipolo system in use			Septic tanks in use			Population served		
				1921	Newly built	Total 1922	1921	Newly built	Total 1922	1921	Newly built	Total 1922
Agusan.....	5			2,095	397	2,492						
Bukidnon.....				1,595		1,595						
Cotabato.....	2			1,319	1,326	2,645						
Davao.....				1,751	520	2,271						
Lanao.....				214		214						
Sulu.....					1	1						
Zamboanga.....	5			1,239	1,515	2,754						
Totals.....	12			7,213	3,759	10,972						

## Disposal of excreta by province

Province	Antipolo system ordinances			Private			Public places, including markets, schools, hotels, and municipal buildings			Population served			Temporary sanitary closets at fiestas			Others		
	In force	Pend- ing	Antipolo system ordinances	Antipolo system in use			Septic tanks in use			Antipolo system in use			Septic tanks in use			Population served		
				1921	Newly built	Total 1922	1921	Newly built	Total 1922	1921	Newly built	Total 1922	1921	Newly built	Total 1922	1921	Newly built	Total 1922
Agusan.....				2,095	397	2,492												
Bukidnon.....				1,595		1,595												
Cotabato.....	2			1,319	1,326	2,645												
Davao.....				1,751	520	2,271												
Lanao.....				214		214												
Sulu.....					1	1												
Zamboanga.....	5			1,239	1,515	2,754												
Totals.....	12			7,213	3,759	10,972												

(13) Out of commission

1,491

*Publicity campaign*

Province	No. of lectures given									Attend- ance
	In schools by—			In barrios by—			In other places by—			
	District health officers	Presidents of sanitary divisions	District nurses	District health officers	Presidents of sanitary divisions	District nurses	District health officers	Presidents of sanitary divisions	District nurses	
Agusan.....	31	25			50			40		3,900
Bukidnon.....										
Cotabato.....										
Davao.....		1			2		1			1,600
Lanao.....										
Sulu.....		2		17	6		1	10		10,000
Zamboanga.....										
Totals.....	31	28		17	58		2	50		15,500

## OFFICE OF THE SANITARY ENGINEERING

[M. MAÑOSA, *Acting Sanitary Engineer*]

The duties assigned to this Office are the following:

1. Sanitary supervision of building constructions, City of Manila.
2. Execution and enforcement of structural sanitary orders, including all orders for filling in lowlands, City of Manila.
3. Plumbing installation and inspection, City of Manila.
4. Sanitary and construction projects, provincial, including construction work in Culion Leper Colony.
5. Drafting section.

For the sake of simplicity this report shall be divided into three sections: (1) work executed for the City of Manila; (2) those performed for the provinces including Culion; and (3) remarks for the year's work.

### MANILA

The following tabulation shows the amount of work performed in the City of Manila during the year as compared with that of the preceding fiscal year:

Nature of work	Fiscal year		Increase (+) or decrease (—)
	1921	1922	
Orders issued .....	493	373	—120
Orders completed .....	443	460	+ 17
Strong material building plans .....	1,040	1,952	+912
Permits for minor constructions:			
Approved .....	1,007	1,054	+ 47
Disapproved .....	77	183	+106
Premises for light constructions:			
Approved .....	1,004	353	—651
Disapproved .....	398	105	—293
Plumbing projects completed .....	1,288	1,486	+198
Plumbing permits issued .....	1,420	1,506	+ 86
Premises connected to sanitary sewer .....	279	287	+ 8
Vaults (septic) installed .....	103	135	+ 32
Plumbing fixtures installed .....	11,098	10,902	—196
Cost of plumbing installations .....	P641,482	P527,330	—114,152
Drafting projects handled .....	88	79	— 9
Blue prints made from various tracings .....	1,337	444	—893

At the request of His Honor, the Mayor, City of Manila, on October 9, 1922, the assistant sanitary engineer, a sanitary inspector, and a clerk began to hold office at the City Hall from 8.30 a. m. to 10 a. m. on working days. This arrangement facilitated the transaction of building permits to house owners and architects. It is a pleasure to be able to state that since the establishment of this branch of the Philippine Health Serv-

ice at the City Hall, although the relation of previous year, between the office of the superintendent of construction and this office mostly was not very satisfactory due to the nature of work assigned to each, this year it has been of the best and most harmonious. Personal coöperation on many instances from the actual superintendent, Mr. Garrido, has brought out this result. We must take this opportunity to express our appreciation and to place it on records.

It is indeed to be regretted that, because of the retrenchment policy adopted by the city officials throughout the year, progress in the line of municipal sanitation was not much. The absence of adequate street drains and the delay of the construction of many proposed streets already built up with light material houses, are the causes of many unsightly and insanitary conditions in many parts of the city. The collection of household refuse in this neighborhood is materially impossible and the disposal of night soil is a problem in itself.

There are also about 12 kilometers of streets in various parts of the city in the strong material districts to which the sanitary sewer system is not yet extended; the buildings thereat have to be provided with a less sanitary means for sewage disposal, viz., the septic vault and the pail system. Although the conditions as a whole in these sections are not as bad as in the light material zone, still the lack of an appropriate drainage system bears upon on this office in two ways: (a) it needs a close supervision, because the system in use is not very sanitary and is usually subject to complaints, and (b) there arises an unavoidable friction with house owners, because of economic reasons, which is usually unfavorable to them.

A sanitary map of the city by health districts showing streets and proposed extensions, the sanitary sewer system, water mains, the numeration of houses, the location of public midden sheds, pumping stations, public bath and laundry houses, and artesian wells was completed. This map was prepared in accordance with the instructions received from the epidemiologist of the Service and was intended to enable the health officers in charge of health stations to keep tract of their cases of communicable diseases.

There are attached hereto other tabulations showing the amount of routine work performed in the City of Manila.

#### PROVINCIAL

Although section 1916 of the Administrative Code provides that "district engineers shall act as sanitary engineer, and shall

consult with district health officers regarding sanitary improvements therein," nevertheless during the year there has been more chances than in the previous years to devote some attention to the phase of the activities of this office. Complying with the administrative orders of the Director of Health, the undersigned made the following inspection trips during the year:

A trip was made to the Province of Benguet to study the sanitary engineering problems in Baguio and Trinidad, especially those which refer to the sewage from Baguio to Trinidad. The report of his findings and recommendations has been submitted to the Director of Health.

Several trips were made to Los Baños, Laguna, for the purpose of assisting Mr. W. D. Tiedman, of the International Health Board, in connection with a malaria campaign that was started there.

An inspection was made to the Monastery of San Francisco del Monte with a view of assisting in determining the possibility of carrying out the proposition of Archbishop Mons. Dougherty to quarter there the negative leper children. A report, together with plans of the convent, was submitted to the Director of Health.

An inspection was made to Cavite, Cavite, for the purpose of making survey in connection with the drainage thereof.

A structural inspection was made to Concepcion Church, Malabon, Rizal, in connection with the dilapidation of several parts thereof. A memorandum report on the same was submitted.

An inspection was made to San Pablo, Laguna, as requested by the district health officer of the province in connection with the garbage crematory. A report of the inspection made was submitted.

An inspection trip was made to Carcar, Cebu, for the purpose of studying the sanitary problems there in connection with the hookworm campaign.

At the request of the district health officer, several short trips were made to a few towns of the Province of Rizal in order to advise him on some engineering projects.

Four trips were made to Culion Leper Colony for the purpose of studying several problems of sanitary engineering in the colony.

Mr. Joaquin Lopez, assistant sanitary engineer, made an inspection trip to Los Baños, Laguna, for the purpose of familiarizing himself with the work that was going on in connection with the malaria campaign.

## GENERAL REMARKS

Judging from the kind of work performed during 1921, it may be inferred that sanitary engineering in the Philippines is entering into a real sphere of activities proper to it. Its importance and its influence is now being felt as evidenced by the majority of the sanitary improvements requested and undertaken thruout the Islands. The valuable work of Mr. W. D. Tiedman of the International Board of Health, without doubt, has been a factor that contributed much towards reaching this stage. This office was certainly fortunate in having Mr. Tiedman as a co-worker in the engineering and entomological side of malaria control work. During the year, he and a Medical Officer of this Service conducted an investigation work in four towns of the Province of Laguna in connection with a general anti-malaria campaign. Mr. Tiedman's conclusions will be available very soon for the benefit of all concerned.

It should be stated here also that we find great trouble in readjusting our present force to the volume of work exclusively assigned to us, even overlooking those that by all means we should handle as for example that of sanitary engineering propaganda. An analysis of our present position will show the necessity of more technical assistants for this branch of the Service. It is impossible to get good results where trained supervision is lacking as what occurs in some of our workers. Special attention is invited to the following comparative tabulation of work handled in the City of Manila and of the personnel employed in this office with their corresponding salaries in the years 1913 and 1922, an interval of 10 years. It must be borne in mind that, during this period, the city has increased in area, in population and in the cost of living, and yet the transportation facilities for the employees of this office has not been improved. As the figures below quoted are self-explanatory, no further comment is believed necessary.

*Comparative tabulation of work handled during 1913 and 1922*

Kind of work	1913	1922
Strong material plans, approved.....	564	1,952
Strong material buildings, completed.....	793	744
Permits for minor buildings:		
Approved.....	482	1,054
Disapproved.....	287	183
Light and mixed material structures:		
Approved.....	510	353
Disapproved.....	101	105
Plumbing permits issued.....	1,053	1,506
Plumbing projects completed.....	894	1,486
Septic vaults installed.....	103	135
Orders pending.....	522	235
Orders issue.....	1,132	373
Orders completed.....	1,045	460

*Personnel of the Office of Sanitary Engineering for the same years*

Personnel	1913		1922	
	No.	Salaries	No.	Salaries
Sanitary engineers.....	2	₱10,200.00*	2	₱8,000.00
Sanitary inspectors.....	2	4,400.00	2	3,480.00
Assistant sanitary inspectors.....	2	960.00	2	1,440.00
Draftsmen.....	2	1,500.00	3	1,680.00
Clerks.....	3	3,360.00	3	1,140.00
Totals.....	11	20,420.00	12	15,740.00

\* Of this amount ₱1,000 is from the City of Manila.

*Statistical information by districts*

[Manila only. Fiscal year ended December 31, 1922]

	Health districts					
	No. 1	No. 2	No. 4	No. 5	No. 6	Total
Orders pending:						
December 31, 1921.....	52	93	101	122	57	425
Orders issued:						
Minor orders.....	63	67	49	24	24	227
Sewer orders.....	10	13	24	5	3	55
Vacating orders.....	8	39	9	.....	8	64
Filling orders.....	7	1	9	9	1	27
Totals.....	88	120	91	38	36	373
Grand totals.....	140	213	192	160	93	798
Orders completed:						
Minor orders.....	55	91	60	58	31	295
Sewer orders.....	13	20	13	3	1	50
Vacating orders.....	7	28	14	.....	.....	49
Filling orders.....	9	.....	32	21	4	66
Totals.....	84	139	119	82	36	460
Orders cancelled:						
Minor orders.....	4	4	1	20	.....	29
Sewer orders.....	4	5	1	1	1	12
Vacating orders.....	.....	13	8	.....	20	41
Filling orders.....	.....	.....	9	10	2	21
Totals.....	8	22	19	31	23	103
Grand totals.....	92	161	138	113	59	563
Orders pending, December 31, 1922:						
Minor orders.....	26	.....	14	33	16	89
Sewer orders.....	12	37	19	4	3	75
Vacating orders.....	4	13	9	.....	9	35
Filling orders.....	6	2	12	10	6	36
Totals.....	48	52	54	47	34	235

No. 1, Intramuros, Ermita, and Malate.

No. 2, Meisic, Santa Cruz, Binondo, and San Nicolas.

No. 4, Sampaloc, Quiapo, San Miguel, and Santa Mesa.

No. 5, Tondo and Santa Cruz (from Requesens up).

No. 6, Pandacan and Santa Ana.

## Statistical information by quarters

[Manila only. Fiscal year ended December 31, 1922]

	January to March	April to June	July to September	October to December	Total
Orders pending: December 31, 1921.....					425
Orders issued:					
Minor orders.....	46	48	67	66	227
Sewer orders.....	16	11	15	13	55
Vacating orders.....	31	3	15	15	64
Filling orders.....	2	1	16	8	27
Totals.....	95	63	113	102	373
Grand total.....					798
Orders completed:					
Minor orders.....	82	75	66	72	295
Sewer orders.....	11	12	17	10	50
Vacating orders.....	19	3	19	8	49
Filling orders.....	30	33	1	2	66
Totals.....	142	123	103	92	460
Orders cancelled:					
Minor orders.....	4	22	1	2	29
Sewer orders.....	6	1	2	3	12
Vacating orders.....	20	8	1	12	41
Filling orders.....		20		1	21
Totals.....	30	51	4	18	103
Grand totals.....	172	174	107	110	563
Orders pending, December 31, 1922:					
Minor orders.....					89
Sewer orders.....					75
Vacating orders.....					35
Filling orders.....					36
Total.....					235

## Statistical information by districts

[Manila only. Fiscal year ended December 31, 1922]

	Health districts					
	No. 1	No. 2	No. 4	No. 5	No. 6	Total
Strong material plans approved:						
New buildings including additions and alterations.....	233	192	357	976	194	1,952
Permits for minor building constructions:						
Approved.....	191	168	253	303	139	1,054
Disapproved.....	25	20	50	65	23	183
New buildings completed.....	126	88	191	253	86	744
Light and mixed material structures:						
Permits approved.....			162	113	78	353
Permit disapproved.....			28	34	43	105
Total number of building projects passed upon.....	575	468	1,041	1,744	563	4,391



*Statistical information by quarters*

[Manila only. Fiscal year ended December 31, 1922]

	January to March	April to June	July to September	October to December	Total
Strong material plans approved:					
New buildings including additions and alterations.....	530	656	434	332	1,952
Permits for minor building constructions:					
Approved.....	261	214	263	311	1,054
Disapproved.....	11	45	65	62	183
New buildings completed.....	148	122	257	217	744
Light and mixed material structures:					
Permits approved.....	103	100	63	87	353
Permits disapproved.....	39	32	21	13	105
Total number of building projects passed upon.....	1,092	1,169	1,108	1,022	4,391

*Statistical information by districts*

[Manila only. Fiscal year ended December 31, 1922]

	Health districts					
	No. 1	No. 2	No. 4	No. 5	No. 6	Total
Plumbing permits issued.....	245	484	272	342	163	1,506
Plumbing projects completed.....	269	578	227	293	119	1,486
Premises connected to the sanitary sewer to December 31, 1921.....	1,560	2,753	961	474	375	6,128
Premises connected from January 1 to De- cember 31, 1922.....	71	58	62	68	28	287
Total of sewers, December 31, 1922..	1,631	2,811	1,023	542	403	6,410

*Statistical information by quarters*

[Manila only. Fiscal year ended December 31, 1922]

	January to March	April to June	July to September	October to December	Total
Plumbing permits issued.....	373	383	383	367	1,506
Plumbing project completed.....	405	269	437	375	1,486
Premises connected to the sanitary sewer to December 31, 1921.....					6,123
Premises connected from January 1 to December 31, 1922.....	78	60	79	70	287
Total sewers, December 31, 1922..					6,410

*Statistical information by districts*

[Manila only. Fiscal year ended December 31, 1922]

Health districts	Prosecutions		
	Convic- tions	Dismissals	Amount of fines imposed
Intramuros.....	2	2	P6.00
Meisic.....	18	14	205.00
Sampaloc.....	7		88.00
Tondo.....	3		25.00
Paco.....			
Totals.....	30	16	P319.00

*Statistical information by quarters*

[Manila only. Fiscal year ended December 31, 1922]

Health district	Prosecutions		
	Convictions	Dismissals	Amount of fines imposed
January.....	5	.....	P24.00
April to June.....	13	5	145.00
July to September.....	5	9	45.00
October to December.....	7	2	105.00
Totals.....	30	16	319.00

**DRAFTING PROJECTS**

[Annual report for the fiscal year 1922]

Project  
No.

6. Blue printing—at intervals—444 copies made from various tracings.
43. Work report—completed at the end of every month.
678. Alteration to project No. 534—at intervals.
685. Septic tank for School for the Deaf and the Blind, Pasay, Rizal, P. H. S.—85 per cent.
688. Model pavilion for the Carnival, 1922—100 per cent.
689. Drum screens for sewage treatment.
690. Plan of privy vault.
691. Plan of Antipolo system.
692. Division of Manila Sanitation weekly health index, general mortality rate and infant mortality, 1922.
693. Division of Manila sanitation weekly health index, general, Intramuros, Meisic, Paco, Sampaloc, and Tondo, infant mortality, 1922. P. H. S.
694. Per 1,000 birth health barometers of Laguna for the year 1922, P. H. S.
695. Diagram of vaccination campaign, P. H. S., from the year 1904 to 1920.
696. The venereal peril of 1,118 cases in 1921 by sex and district, City of Manila, P. H. S.
697. Division of Manila sanitation weekly health index, death rate per 1,000 population, 1922, P. H. S.
698. Lettering—various kinds to be exhibited in the Carnival, 1922, P. H. S.
699. Division of Manila sanitation comparative infant mortality per 1,000 births, P. H. S.
682. Plan of a proposed fathers' residence—intervals.
700. Annual cases and mortality rates per 100,000 population of small-pox and varioloids, City of Manila, for the years 1918 and 1921, P. H. S.
701. Intramuros Health Station No. 1, infant mortality for 36,602 population, City of Manila, P. H. S.
702. Topographic map of a part of Culion Leper Colony showing the proposed districts—40 per cent.
703. Infant mortality thermometer under one-year rate per 1,000 births from 1912 to 1916, P. H. S.

704. Annual death rate by month, City of Manila, P. H. S.
705. Chart of daily death and birth, Station No. 1, P. H. S.
706. Plotting profile of the continued survey of Tabuc River, Culion Leper Colony—60 per cent.
702. Topographic map of a part of Culion Leper Colony, showing the proposed districts—100 per cent.
707. Plotting of survey from Saddle to Balbad River, Culion Leper Colony.
708. Tracing of topographic map of Culion Leper Colony.
709. Alteration to project 534—at intervals.
710. Tracing of the University of Hawaii official outline of dean processes for the preparation of leprosy treatment, P. H. S.
711. Lettering names of medicine in the property drug store, P. H. S.
712. Proposed Culion Leper Colony currency for the year 1922.
713. Alteration to project 597—at intervals.
714. Plan of Culion Leper Colony showing proposed arrangement of pipes—60 per cent.
715. Standard septic tank—minimum.
716. Annual death rates by months, City of Manila.
717. Location plan of the Government Orphanage Building, San Pedro Makati, Rizal.
718. Tracing and reducing the scale of chart venereal diseases.
719. Tracing of rat-proof floor and partition.
720. Lettering of the Government Orphanage.
721. Tracing map, barrio of Loños, and Laguna Bay (Bureau of Lands).
722. Tracing of the Government Orphanage, proposed scheme.
723. Tracing of proposed criminal insane ward.
724. Alteration to project 718.
725. Alteration to project 719.
726. Tracing plan of purifying waste water from sugar mill.
727. Preliminary drawing of proposed building for negative children, Culion Leper Colony.
728. Tracing two plans of employees' quarters and hospitals.
729. Alteration to project 597.
730. Tracing plan of proposed school building.
731. Tracing plans of health stations re-distribution system, City of Manila, at intervals.
732. Tracing plan of Imhoff tank—100 per cent.
733. Tracing plan of public midden shed for the provinces.
734. Tracing plan of an emergency hospital, Manduriao, Iloilo.
735. Tracing plan of a septic tank for the proposed hospital, Manduriao, Iloilo.
736. Tracing plan of a part of topographical map of Culion and vicinity.
737. Tracing plan of prevalence of typhoid, City of Manila.
738. Retracing the plan of public midden shed.
739. Lettering and carving Dr. E. Hernando's name on pasteboard.
740. Lettering map of City of Manila, showing its distribution system and location artesian wells.
741. Tracing plan of proposed San Lazaro Hospital.
742. Tracing plan of sketch, showing distribution system and reservoirs, City of Manila.
743. Tracing plan of proposed leper quarter, San Lazaro Hospital.

744. Lettering record books.
745. Measuring monastery, San Juan del Monte.
746. Tracing plan of monastery, San Juan del Monte.
747. Tracing plan of hole for public midden shed.
748. Tracing plan of re-organization, P. H. S.
749. Tracing plan treatment and sewage disposal for provinces and rural buildings.
750. Tracing plan, Cavite.
751. Tracing plan of standard septic vault.
752. Tracing plan of garbage crematory.
753. Coloring the map of the City of Manila.
754. Drawing shield of the P. H. S.
755. Training of commissioned staff, P. H. S.
756. Tracing plan for provincial standard hospital.
757. Tracing plan of water reservoir, Culion Leper Colony.
758. Retracing the map of Linga, barrio of Pila, Laguna.
759. Retracing the plan of public midden shed for the provinces.
760. Proposed hospital, San Jose, Antique.
761. Proposed sewage plan, City of Baguio.
762. Reducing the plan of the municipality of Carcar, Cebu.
763. Lettering signs, P. H. S., for provinces.
764. Plan of proposed hospital in the province, by Doctor Munson.
765. Plan of a proposed septic vault for the provinces.
766. Reducing the plan of Iwahig Penal Colony, Palawan.

## MEDICAL INSPECTION OF SCHOOLS

[MIRIAM E. GRIFFIN, *Senior Medical Inspector, Incharge of School Inspection south of the Pasig River*]

The staff of school nurses having been increased by one, it has been possible for the physician in charge to conduct more complete physical examinations thus making the inspections more satisfactory and also increasing the size of the school clinics. In the three school clinics established south of the Pasig River, a total of 15,981 cases were treated in 1922 against 10,024 in 1921. A large increase in the number of eye and medical cases occurred during the year. The figures put down in the following three tables refer to the number of cases, while those in the last (4th) table refer to the number of defects found.

During some months, the work in school inspection has provided clinical instruction for students of the School of Public Health Nursing. These students have reported for instruction by twos and threes, the first half of the period of instruction being given up to observation, the second half to practical work under the close supervision of the Medical Inspector in charge. Similar instruction was given earlier in the year to a group of Red Cross nurses who were sent to the provinces to do school inspection work.

*Report of cases treated at school clinic, Station No. 1, Intramuros, during the year 1922*

Months	Total	Trachoma	Acute conjunctivitis	Simple conjunctivitis	Ulcers	Skin disease	Surgical cases	Nose and throat	Burns	Ear cases	Number of operations	Medical cases	Number cured
January.....	654	123	25	207	.....	13	112	42	.....	12	3	89	28
February.....	69	.....	23	.....	.....	.....	35	9	.....	.....	.....	2	.....
March.....	446	62	3	139	.....	9	117	18	.....	1	.....	83	14
April.....	166	8	11	94	.....	9	34	4	.....	.....	.....	2	4
May.....	287	19	4	104	.....	16	96	9	.....	6	.....	.....	12
June.....	355	185	5	80	.....	25	35	.....	.....	1	.....	10	9
July.....	396	52	7	137	.....	134	.....	.....	.....	3	.....	40	13
August.....	644	73	.....	230	.....	90	65	33	.....	1	.....	131	17
September.....	949	278	.....	198	.....	53	201	21	.....	11	.....	163	22
October.....	1,015	244	.....	244	.....	27	156	32	.....	2	.....	217	24
November.....	866	182	8	128	.....	19	144	48	.....	17	.....	104	16
December.....	860	244	48	138	172	26	1	47	.....	12	1	96	15
Totals.....	6,487	1,520	134	1,759	172	421	996	267	8	88	11	937	174

*Report of cases treated at school clinic, Station No. 6, Paco, during the year 1922*

Months	Total	Acute conjunctivitis	Simple conjunctivitis	Ulcers	Skin diseases	Surgical cases	Nose and throat	Burns	Ear cases	Number of operations	Number cured
January.....	297	3	46	.....	75	166	.....	.....	.....	.....	1
February.....	270	20	56	.....	52	134	.....	.....	.....	.....	6
March.....	654	78	221	.....	133	204	.....	.....	.....	.....	14
April.....	16	2	4	.....	5	.....	.....	.....	.....	.....	.....
May.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July.....	89	.....	33	.....	10	45	.....	.....	.....	.....	1
August.....	1,150	6	703	50	38	347	.....	5	.....	.....	.....
September.....	885	3	387	385	43	43	2	.....	.....	.....	19
October.....	1,070	2	432	19	37	560	4	2	1	13	.....
November.....	581	3	243	306	6	6	3	2	.....	12	.....
December.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	5,012	116	2,124	760	399	1,510	14	9	1	71	8

*Report of cases treated at school clinics<sup>1</sup> south of Pasig River, during the year 1922*

Months	Total	Trachoma	Acute conjunctivitis	Simple conjunctivitis	Ulcers	Skin diseases	Surgical cases	Nose and throat	Burns	Ear cases	Number of operations	Medical cases	Number cured
January.....	1,149	123	38	340	87	88	289	55	.....	12	4	89	34
February.....	1,315	.....	43	190	88	88	197	25	.....	1	3	210	6
March.....	1,438	62	31	515	88	142	340	37	.....	75	4	83	28
April.....	1,822	18	13	88	.....	14	39	4	.....	.....	.....	2	4
May.....	267	15	2	104	.....	16	96	9	.....	.....	.....	.....	12
June.....	482	135	7	107	21	25	47	2	.....	1	2	44	9
July.....	1,001	82	7	101	36	134	16	18	.....	4	1	.....	13
August.....	1,202	73	.....	386	116	100	113	54	.....	14	1	168	18
September.....	3,132	282	5	1,309	138	91	603	46	.....	6	.....	336	22
October.....	2,596	254	3	1,432	486	70	296	57	.....	14	2	435	43
November.....	2,312	182	10	816	140	90	720	88	.....	22	2	341	29
December.....	1,695	244	51	549	560	32	12	60	.....	21	1	214	27
Totals.....	15,981	1,524	250	5,757	1,860	854	2,701	455	17	183	19	2,116	245

<sup>1</sup> Including that in the Trade School which is not separately tabulated in this Report.

*Medical inspection of schools*

[Total number of pupils examined, 28,057]

	Disposition of cases			
	Boys	Girls	Excluded	Total
6. Mumps .....	9	2	11	11
21. Trachoma .....	157	32	189	189
22. Acute conjunctivitis .....		2	2	2
31. Scabies .....	26	11	37	37
33. Favus .....	8	5		8
34. Ulcers .....	333	150		483
41. Myopia .....	38	17		55
42. Other eye affections:				
Simple, congenital .....	1,118	623		1,741
Foll. conjunctivitis .....	81	23		104
Astigmatism .....	41	49		90
Strabismus .....	18	11		29
Miscellaneous .....	21	7		28
43. Adenoids .....	22	2		24
44. Tonsils, hypertrophied .....	470	371		841
45. Dental caries .....	6,090	4,607		10,697
46. Defects of hearing .....	148	77		225
47. Discharge from one ear .....	18	7		25
50. Tuberculosis (without open lesions) .....	25			25
51. Tinea .....	1,323	375		1,698
53. Bodily deformities .....	32	14		46
54. Mental defects .....		1		1
56. Other diseases:				
Bronchitis .....	421	234		655
Adenitis .....	69	39		108
Pleurisy .....	56	10		66
Valvular lesion (heart) .....	28	12		40
Anemia .....	35	34		69
Impact serum .....	3	2		5
Miscellaneous .....	22	23		45
Students free from defects .....	7,764	5,581		13,345
Total of defects .....	10,607	6,740	239	17,347



## MEDICAL INSPECTION OF SCHOOLS

[FELIPE ARENAS, *Senior Medical Inspector, In charge of School Inspection, north of Pasig River*]

The work was carried on under the same plan as in previous years. The number of nurses employed by the city in this district was five (5), but one (Mrs. J. O. Agarcio) resigned last July 3, 1922, and up to date no successor has been appointed.

The clinical and inspection work are shown in the attached Tables A and B which show no improvement from that of last year as regard the health of school children, due to the lack of personnel. During the year 1921, the approximate total number of pupils in this district was 26,963 and in 1922, 33,617 pupils, which shows an increase of about 24.68 per cent. The defects found on the first inspection made in 1921 amounted to approximately 58 per cent, while in our first inspection in 1922, 97 per cent. This fact was caused by the lesser number of personnel as compared with previous years. Each school in this district, north of Pasig River, was previously inspected at least three or four times during the school year while at present once or twice only.

In addition to the work of inspection and treatment, all students were vaccinated with smallpox vaccine at least twice during the school year and injected with anti-cholera and anti-typhoid vaccine three times successively at intervals of one week.

The diagnosis found among the school children during the year are shown in Table C. The work of the school dentist is shown in Table D and the dangerous communicable diseases in Table E. In regard to dangerous communicable diseases, Table E shows, as in previous years, that they do not seriously affect our school children.

It has been observed that during the year the teachers co-operated with the inspection force by sending promptly to the clinics all children needing treatment. In every case the diagnosis was confirmed by the medical inspector of schools, north of the Pasig River.

The report of the American Red Cross, Philippines Chapter, in regard to the inspection of school children of Mabini Inter-

mediate and Santa Cruz Primary Schools are included in this report.

TABLE A.—*Clinical work*

Months	Clinics	Number of operations	Number of treatments	Number cured
<i>1922</i>				
January	Meisic, Station No. 2	2	77	26
Do.	Sampaloc, Station No. 4	1	793	29
Do.	Tondo, Station No. 5	9	1,157	27
February	Meisic, Station No. 2		556	25
Do.	Sampaloc, Station No. 4	1	759	10
Do.	Tondo, Station No. 5	1	714	14
March	Meisic, Station No. 2		722	30.
Do.	Sampaloc, Station No. 4	2	985	9
Do.	Tondo, Station No. 5	2	712	15
April	Meisic, Station No. 2	1	435	2
Do.	Sampaloc, Station No. 4	3	607	6
Do.	Tondo, Station No. 5	2	618	16
May	Meisic, Station No. 2	23	752	8
Do.	Sampaloc, Station No. 4	15	793	6
Do.	Tondo, Station No. 5	15	1,230	15
June	Meisic, Station No. 2	46	1,621	16
Do.	Sampaloc, Station No. 4	10	1,140	17
Do.	Tondo, Station No. 5	30	2,028	43
July	Meisic, Station No. 2	47	2,874	68
Do.	Sampaloc, Station No. 4	30	1,303	31
Do.	Tondo, Station No. 5	17	1,553	23
August	Meisic, Station No. 2	50	5,786	92
Do.	Sampaloc, Station No. 4	18	1,600	22
Do.	Tondo, Station No. 5	25	1,945	25
September	Meisic, Station No. 2	72	3,732	66
Do.	Sampaloc, Station No. 4	16	1,667	31
Do.	Tondo, Station No. 5	15	2,096	31
October	Meisic, Station No. 2	69	4,681	94
Do.	Sampaloc, Station No. 4	7	1,199	24
Do.	Tondo, Station No. 5	26	2,442	27
November	Meisic, Station No. 2	56	2,583	68
Do.	Sampaloc, Station No. 4	13	2,043	30
Do.	Tondo, Station No. 5	27	2,638	27
December	Meisic, Station No. 2	12	924	26
Do.	Sampaloc, Station No. 4	4	860	10
Do.	Tondo, Station No. 5	12	1,816	18
Grand totals		679	58,141	1,027

TABLE B.—Months of inspection—number of pupils examined and defects found

Schools	Month of first examination	Total of pupils examined	Total defects found	Month of second examination	Total of pupils examined	Total defects found	Month of third examination	Total of pupils examined	Total defects found
Quiapo Primary.	January.	552	272	August.	843	409			
San Miguel Primary.	February.	452	201	October.	685	366			
Gagalagin and Lico Primary.	July.	1,391	1,303						
Gulpit Primary.	do.	1,285	639						
Mabini Intermediate.	August.	1,652	1,607						
Santa Clara Primary.	do.	1,138	1,035						
Bonifacio Primary.	do.	1,525	1,741						
San Sebastian Primary.	do.	743	465						
Asuncion Primary.	do.	823	718						
Meisic Primary.	do.	2,661	1,028						
Soler Intermediate.	September.	672	626						
Santa Cruz Primary.	do.	940	3,303						
Santa Mesa Primary.	do.	685	463						
Soler Primary.	do.	910	941						
Manila North High.	do.	2,332	1,593						
Tondo Intermediate.	do.	1,743	2,480						
San Nicolas Primary.	October.	1,138	1,150						
San Nicolas Intermediate.	do.	766	694						
Tondo Primary.	November.	2,488	2,965						
Zambra Elementary.	do.	1,193	1,038						
Washington Elementary.	do.	865	482						
Magdalena Elementary.	do.	1,640	2,231						
Rizal and Yango Elementary.	December.	1,721	2,059						
Burgos Elementary.	do.	1,286	762						
Grand totals.		30,596	29,796		1,528	775			

TABLE C.—*Medical inspection of schools north of Pasig River*

Diagnosis	Males	Females	Total
6. Mumps .....	5	1	1
7. Tuberculosis (with open lesions) .....		1	1
21. Trachoma .....	409	176	585
22. Acute conjunctivitis .....	15	8	23
31. Scabies .....	53	40	93
34. Tropical ulcers .....	8	3	11
42. Chronic conjunctivitis .....	2,882	2,265	5,147
42. Strabismus .....	28	24	52
42. Stye .....	18	15	33
42. Blindness .....	1		1
42. Cataract .....	18	11	20
44. Tonsils, hypertrophied .....	129	100	229
46. Dental caries .....	8,816	7,130	15,946
46. Defects of hearing .....	1	2	3
47. Discharge from one ear .....	16	4	20
48. Discharge from both ears .....	5		5
49. Adenitis, tubercular .....	1	4	5
51. Tinea .....	1,404	684	2,088
52. Pediculosis (no live pediculi) .....	6	373	379
53. Bodily deformities .....	32	8	40
56. Wounds .....	354	148	502
56. Itches .....	275	197	472
56. Pimples .....	206	74	280
56. Ulcers .....	71	29	100
56. Anemics .....	238	183	421
56. Cough .....	6	4	10
56. Abscess .....		1	1
56. Cold .....	2	1	3
56. Bitten by dog .....	1		1
56. Slight eczema .....		1	1
56. Paralysis .....	1		1
Total .....	15,001	11,487	26,488

NOTE.—The totals exclude 3,808 in which the data are lacking for proper classification.

TABLE D.—*Annual consolidated report of schools dental clinic work north of Pasig River for the year 1922*

Months	Guta percha filling	Cement filling	Amalgan filling	Dental carriers	Cleaning
January .....					
February .....					
March .....					
April .....					
May .....					
June .....					
July .....					
August .....				120	72
September .....	18	4	4	329	235
October .....	20	5	16	294	211
November .....	45	7	24	318	231
December .....	31	18	37	80	98
Totals .....	114	34	81	1,141	847

Months	Extraction	Sound	Number treated	Number examined
January .....				
February .....				
March .....				
April .....				
May .....				
June .....				
July .....				
August .....	64	37	287	324
September .....	318	138	966	1,088
October .....	407	167	1,056	1,231
November .....	208	193	984	1,175
December .....	58	31	353	419
Totals .....	1,055	566	3,645	4,237

TABLE E.—*Dangerous communicable diseases*

Schools	Typhoid fever	Dysen- tery	Varicella	Leprosy suspect	Influ- enza
Quiapo Primary School.....	2		1		
Santa Cruz Primary School.....	2	1			
Asuncion Primary School.....	4				
Meisic Primary School.....	3				
Far Eastern College.....	4	1			
Manila North High School.....	3		1		
St. Stephet School.....	1				
Magdalena Elementary School.....	2				
Philippine School of Commerce.....	2				
San Nicolas Primary School.....	4	1			
Benavides Primary School.....	1				
Lincoln Primary School.....	1				
Mabini Intermediate School.....	2				
Tondo Intermediate School.....	2				
Anglo Chinese School.....	1		1		
Moriones Primary School.....	1				
Soler Intermediate School.....	1		1		1
Zurbaran Elementary School.....	1				
Soler Primary School.....	1	1	1		
Tondo Primary School.....	4	1	1		
Burgos Elementary School.....	2			1	
Totals.....	44	5	5	1	1

## **REPORT OF THE PUBLIC HEALTH NURSING FOR THE YEAR 1922**

[CARMEN R. LEOGARDO, *Chief, Public Health Nursing Office*]

### **SPECIAL ASSIGNMENT OF NURSES**

At the beginning of the year, the personnel of this Office consisted of 19 nurses. Six nurses were detailed in the typhoid investigation in Manila from April 17 to July 3, 1922. One nurse was assigned to Ilocos Norte for duty in connection with yaws campaign from March 31 to April 12, 1922. One nurse went to Iloilo to represent the Philippine Health Service at the Carnival held in that city from April 12 to 27, 1922. One nurse was detailed in the malaria campaign in Laguna from June 7 to August 12, 1922. Detail of one nurse to the Iwahig Penal Colony was made since May 29, 1922. In addition to the usual assignment of one nurse for one week every month for public health nursing work among the civilian population of Camp Stotsenburg, assignment of one nurse for similar duty at Fort Mills for the same period of time was made beginning June 19, 1922. Eight nurses entered the Public Health Nursing School on August 1, 1922. In view of these special assignments, the routine work of the office was much crippled.

### **TIKI-TIKI EXTRACT**

Five thousand two hundred ninety-eight bottles of tiki-tiki extract were given out this year, of which 3,473 were distributed at the Health Center and 1,825 were supplied by nurses at the homes of the patients. There was a greater demand this year for tiki-tiki extract.

The nurses took tiki-tiki extract to the homes of only those who were unable to go for one reason or another to the Health Center. The object in having most of the patients call at the Health Center for tiki-tiki was to encourage them to come to us for consultation of their ailments instead of seeking advice from ignorant neighbors.

### **CLINICS AT EACH HEALTH STATION**

The physician of the Health Center began, on October 15, 1922, to hold clinics at each health station once a week in the afternoon. The nurses of the corresponding station do not

make house-to-house visits on such afternoons but remain at the station to assist the physician in the clinic.

### SUMMARY

A summary of the work carried out during the year is given in the attached statement.

#### YEARLY REPORT OF PUBLIC HEALTH NURSING

##### YEAR 1922

1. Prospective mothers instructed in regard proper diet, ventilation, housing, and surroundings.....	1,915
2. Prospective mothers given treatments in their homes.....	81
3. Prospective mothers referred to clinic for—	
(a) Examination .....	140
(b) Medical advice .....	241
(c) Surgical treatment .....	61
4. Mothers instructed in the right care of babies in regard to feeding, bath, cleanliness, ventilation, and clothing.....	5,349
5. Mothers given instructions and demonstrations:	
(a) Modified milk formula.....	259
(b) Giving bath to babies.....	1,990
6. Number given treatments in houses:	
(a) Babies .....	512
(b) Mothers .....	255
7. Number referred to clinics for:	
I. Examinations—	
(a) Babies .....	174
(b) Mothers .....	182
II. Medical advice—	
(a) Babies .....	772
(b) Mothers .....	532
III. Surgical treatment—	
(a) Babies .....	275
(b) Mothers .....	168
8. Mothers found without signs of beriberi during pregnancy..	4,802
9. Mothers found without signs of beriberi during previous pregnancies but with signs during last pregnancy.....	712
10. Mothers found without signs of beriberi during present pregnancy but with signs during the previous pregnancies.....	783
11. Mothers with signs of beriberi in every pregnancy.....	349
12. Babies found without signs of beriberi born to mothers without signs of beriberi.....	4,575
13. Babies found with signs of beriberi born to mothers with a previous history of beriberi.....	1,265
14. Babies found with signs of beriberi born to mothers without history of beriberi previously but now suffering from beriberi .....	300
15. Babies under tiki-tiki treatment given as prophylactic.....	1,725
16. Babies under tiki-tiki treatment given as curative.....	373
17. Babies recovered by tiki-tiki treatment.....	660

18. Babies that did not develop beriberi symptoms of tiki-tiki treatment given as prophylactic.....	779
19. Babies born to mothers who had history of beriberi previously that developed beriberi in spite of the tiki-tiki treatment given continuously.....	445
20. Babies that died of beriberi during the tiki-tiki treatment.....	279
21. Tiki-tiki bottles issued during the year.....	5,298
22. Deliveries attended outside by the Public Health Nursing during the year.....	59
23. Cord dressings made during the year in the houses of outside patients .....	1,251
24. Registrations made during the year.....	4,140
25. Vaccinations made during the year.....	3,035
26. Vaccinations found:	
(a) Positive .....	6,374
(b) Negative .....	837
27. Breastfed babies visited during the year.....	6,582
28. Artificially fed babies.....	772
29. First visits made during the year to:	
(a) Prospective mothers.....	2,554
(b) Babies and mothers.....	8,020
(c) Mothers alone.....	959
30. Subsequent visits made during the year to:	
(a) Prospective mothers.....	1,162
(b) Babies and mothers.....	17,172
(c) Mothers alone.....	182
31. Poor sick babies with lung troubles who were supplied with flannel garments .....	125
32. Homes visited where lectures in personal hygiene and sanitation of housings and surroundings were given.....	8,845
33. Patients transferred .....	159
34. Patients not found.....	1,818

#### REPORT OF THE WORK DONE IN THE HEALTH CENTER

The work has continued along the same line as last year, that is, instruction in the simple laws of health and hygiene to individual mothers and expectant mothers, and physical examinations and medical treatments on them and on babies under two years of age were given.

Mothers and expectant mothers showed more interest and enthusiasm in health education and sought prompt medical advice on any slight illness, and those who are living in districts far from Intramuros have been requested the service to hold at least one day clinic every week in the health station of their respective district. As we are dealing chiefly with people of poor financial means, the foregoing request was submitted to the Assistant Director, Dr. S. V. del Rosario, who is



in charge of the Public Health Nursing Office. The request was granted and on October 15, 1922, the afternoon clinics were begun in the different health stations of the city, one afternoon being devoted at each station. Paco and Tondo had the most attendance, each averaging from 25 to 30 patients each time.

The 301 clinics held during the year in the Health Center including the afternoon clinics in the different health stations had a total attendance of 1,087 babies, 925 mothers, and 294 expectant mothers.

The number of calls made were as follows: 3,200 for babies, 2,133 for mothers, and 446 for expectant mothers, or an average of 19 patients per day.

Outside visits were also made to those poor mothers and babies needing medical attention. The total number of patients visited outside were 75 babies (43 of which had never been in the clinics), 65 mothers and 12 expectant mothers. Five normal deliveries were attended by the Health Center during the year. Abnormal cases and prolonged labors were referred to the Philippine General Hospital.

Tiki-tiki extract was given free to babies as prophylactic and curative treatment against beriberi.

The following is a brief summary of the year's work together with a list of diseases and pathological conditions found among the babies, mothers and expectant mothers.

#### SUMMARY OF THE YEARLY REPORT OF THE HEALTH CENTER

1. Old cases:	
Babies .....	151
Mothers .....	142
Expectant mothers .....	7
2. New cases:	
Babies .....	979
Mothers .....	848
Expectant mothers .....	299
3. Number of babies treated in the clinic.....	1,087
4. Number of subsequent calls (babies) made to the clinic.....	3,200
5. Number of babies treated outside.....	75
6. Number of subsequent outside visits (babies) made.....	112
7. Number of babies treated under one year of age.....	1,060
8. Number of babies treated over one year of age.....	70
9. Number of babies receiving breast feeding.....	908
10. Number of babies receiving bottle feeding.....	97
11. Number of babies receiving mixed feeding (bottle and breast)	90
12. Number of babies (over one year) receiving miscellaneous foods .....	35

	Number of cases
13. Diseases and pathological conditions of babies:	
Abscess, gluteal .....	2
Adenitis, cervical .....	15
Anæmia, secondary .....	2
Ascariasis .....	19
Beriberi, infantile .....	299
Bronchitis .....	605
Boncho-pneumonia .....	31
Burns .....	2
Conjunctivitis, acute .....	50
Constipation .....	161
Diphtheria .....	1
Dislocation, shoulder .....	1
Dyspepsia .....	218
Eczema .....	136
Erysipelas .....	4
Furunculosis .....	22
Gastritis .....	7
Gastro-duodenitis .....	1
Hernia, inguinal .....	1
Hernia, umbilical .....	5
Ileocolitis .....	92
Impetigo .....	1
Imperforate anus .....	1
Infection, cord .....	10
Jaundice, neonatorum .....	1
Keratitis, phlyctenular .....	2
Malnutrition .....	36
Measles .....	3
Malaria .....	27
Nephritis, secondary .....	12
Otitis media .....	31
Oxyuriasis .....	6
Pemphigus .....	5
Pertussis .....	73
Pleuritis .....	2
Pneumonia, lobar .....	6
Rickets .....	2
Scabies .....	105
Scurvy .....	1
Stomatitis .....	37
Tetanus, umbilical .....	2
Tetany .....	1
Thrush .....	2
Tinia circinata .....	1
Vaginitis .....	1
Yaws .....	2
14. Number of mothers treated in the clinic.....	990
15. Number of subsequent calls (mothers) made to the clinic.....	2,133
16. Number of mothers treated outside.....	65
17. Number of subsequent outside visits made.....	75

18. Number of expectant mothers treated in the clinics.....	306
19. Number of subsequent calls (expectant mothers) made to the clinic .....	446
20. Number of expectant mothers treated outside.....	12
21. Number of outside visits (expectant mothers) made.....	20
22. Number of deliveries attended.....	5
23. Financial condition of parents:	
Good .....	28
Fair .....	159
Poor .....	1,249
	Number of cases
24. Diseases and pathological conditions of mothers and expectant mothers:	
Abscess, breasts .....	2
Abscess, dental .....	2
Abortion, complete .....	2
Abortion, threatened .....	6
Adenitis .....	11
Anæmia, secondary .....	69
Arthritis, rheumatic .....	10
Ascariasis .....	20
Asthma, bronchial .....	3
Beriberi .....	555
Blepharitis, chronic .....	2
Bronchitis .....	228
Chalazion .....	2
Conjunctivities, catarrhal .....	30
Conjunctivitis, follicular .....	5
Constipation .....	583
Dachryocistitis .....	4
Dysentery .....	27
Endocarditis, secondary .....	1
Endometritis .....	51
Epilepsy .....	1
Fibroma uteri .....	1
Furunculosis .....	2
Gastritis, acute .....	2
Gingivitis .....	3
Hemorrhage, post-partum .....	2
Hemorrhage, uterine .....	2
Hysteria .....	1
Indigestion .....	10
Infection, puerperal .....	1
Influenza .....	50
Keratitis, phlyctenular .....	3
Laryngitis, acute .....	6
Malaria .....	10
Mastitis .....	10
Miscarriage .....	2
Mumps .....	2
Nephritis .....	14
Oxyuriasis .....	21

## 24. Diseases and pathological conditions of mothers and expectant mothers—Continued.

Pharyngitis .....	26
Pleurisy .....	1
Psychosis, post-partum .....	2
Pterygium, bilateral .....	1
Rheumatism .....	12
Rhinitis .....	4
Scabies .....	50
Stomatitis .....	31
Subinvolution, uteri .....	5
Syphilis .....	1
Tinia circinata .....	2
Tinia imbricata .....	1
Tuberculosis .....	28
Tonsilitis .....	7
Trachoma .....	1
Urticaria .....	1
Urethritis .....	6
Varicose veins .....	6

*Infant mortality due to beriberi during the last five years in  
the City of Manila*

Year	Total number of deaths
1918 .....	597
1919 .....	354
1920 .....	555
1921 .....	722
1922 .....	* 671

\* Including transients

The foregoing figures show that in spite of all the efforts of the Philippine Health Service and other institutions to eradicate infantile beriberi, the number of infant deaths due to this disease has increased from 1920 to 1921, inclusive. The lack of unpolished rice in the markets plus the poor nutrition of the indigent mothers brought about by the financial crisis may have been an important factor in this increase. But in 1922, there is a slight fall of infant deaths due to this disease which, we hope, will continue to decline in the coming years.

Statistics also show that the rate of infant mortality (under 1 year of age) was steadily decreasing yearly from 1918 to 1922, inclusive, as observed in the following table:

*Infant Mortality, City of Manila*

Year	[Under 1 year of age]	Rate per 1,000 births
1918 .....		397.66
1919 .....		224.95
1920 .....		213.02
1921 .....		205.52
1922 .....		194.25

A question may naturally arise if the number of registered births (the basis for comparison of crude deaths figures in reckoning the infant death rate) during the same period has not increased. The following table shows that from the year 1919 to 1922, inclusive, there was an apparent annual increase in the number of births in Manila (although in 1921 there was a little decrease as compared with that of 1920) :

Year	Number of births	Actual birth rate
1918.....	9,083	32.06
1919.....	10,029	34.89
1920.....	12,614	43.27
1921.....	12,261	41.47
1922.....	13,092	43.68

### MATERNITY AND CHILD WELFARE WORK IN THE PHILIPPINE ISLANDS

(Courtesy of Public Welfare Commissioner)

The following is extracted from the Second Annual Report of the Office of the Public Welfare Commissioner for the year ending December 31, 1922.

*Puericulture Centers.*—The Office of the Public Welfare Commissioner has adhered to its policy of encouraging and promoting the establishment of puericulture centers throughout the Philippine Islands, which are to serve as agencies for the proper treatment of mothers and children and for the dissemination of knowledge on their proper care through visiting and following-up work done by its nurses. A special feature of the work of the office is the establishment of schools of midwifery for the proper training of midwives who will replace the old and ignorant *manghihiilot* (unlicensed midwives). It is gratifying to state that the extensive propaganda made on the importance and necessity of maternity and child care proved fruitful, the result manifesting itself in a general eagerness to establish puericulture centers.

The puericulture centers are required to meet certain standards prescribed by the Secretary of the Interior in his Department Order No. 10, series 1921, and those coming up to these standards are extended financial aid from the Insular Government in an amount equal to that which has been raised in the locality.

Up to December 31, 1922, there were in active operation 116 puericulture centers in 28 provinces of the Islands making a total registration of 9,195 mothers and 42,594 children with an attendance of 17,989 and 128,768 respectively. The nurses of these centers made 84,949 visits to families and gave 523 conferences to unlicensed midwives.

*Distribution of tiki-tiki extract.*—Pursuant to the provisions of the law which entrusted to the former Public Welfare Board the free distribution of tiki-tiki extract as a means of combating infantile beri-beri, the Office of the Public Welfare Commissioner has distributed the extract through the puericulture centers, woman's clubs, and such other social service organizations as the American Red Cross and the "Liga Nacional para la Protección de la Primera Infancia." A total of 46,730 bottles of the extract, each bottle containing 50 cubic centimeters, was thus distributed, 30,470 by the Office of the Public Welfare Commissioner, 14,427 by the

Philippine Health Service, 1,100 by the "Liga Nacional para la Protección de la Primera Infancia," and 733 by the Philippine General Hospital.

**Educational Work.**—A great part of the success of the work of the office was largely due to the intensive educational work carried out through the publication and distribution of posters, pamphlets and other literature especially prepared to demonstrate graphically and in a simple way to the public the importance of the health of our mothers and the care of our children. Over 150,000 of these propaganda material, translated into the most important dialects, were distributed.

**Regional Conferences.**—Two regional conferences were held during the year, one in Cebu and another in Iloilo, for the purpose of arousing the interest of the people of those places in the importance of maternity and child welfare work. Thanks to the celebration of these conferences, the activities of the puericulture centers established in those places were carried out with more impetus.

(For further information, see the Second Annual Report of the Office of the Public Welfare Commissioner, Manila.)

## FOOD INSPECTION

### PERSONNEL

Dr. S. V. DEL ROSARIO, *Assistant Director of Health, Chairman*

Mr. J. M. KAMANTIGUE, *Chief Agent, Bureau of Internal Revenue, Member*

Mr. F. AGCAOILI, *Analyst, Bureau of Science, Member*

Mr. F. J. BROWN, *Appraiser of the Port, Bureau of Customs, Member*

Report of Food Inspection, fines imposed for violation of Food and Drugs Act, and food stuffs condemned and destroyed during the year ending December 31st, 1922:

Articles examined	Number of samples
Malt liquors, wines, whisky, etc.....	39
Milks .....	26
Aërated water .....	632
Foods .....	1,136
Drinking water.....	615
Total .....	2,448

For violation of Food and Drugs Act:

Total fines..... ₱676.50

Articles condemned and destroyed	Quantity	Unit price	Value
Sardines.....cases..	1,381	₱10.56	₱14,583.36
Pilchards (Anchovies).....do...	485	3.00	1,455.00
Libby's spinach.....do...	165	16.80	2,762.00
Libby's cabbage.....do...	54	16.80	907.20
Chocolates.....tins..	21	.50	10.50
Biscuits.....do.....	1,008	.85	856.80
Breads.....leaves..	649	.05	32.45
Cakes.....do.....	240	.01	2.40
California grapes.....kegs..	615	12.00	7,380.00
Hams.....cases....	2	108.00	216.00
Chickens.....number..	1	1.20	1.20
Articles used for handling foods.....do...	2	.50	1.00
Total value.....			28,207.91

**BOARD OF MASSEURS****FELIPE ARENAS, M. D.,** *Chairman***T. SUGUIMOTO,** *Member***TOMASA GODUCO, R. N.,** *Member*

The examination on July 10, 1922, was held at the Philippine General Hospital with Miss Socorro Salamanca as member, and that on September 4, 1922, at San Lazaro Hospital with Miss Tomasa Goduco as member.

The examinations consisted of practical questions in the practice of massage. Each member gave a set of questions and 70 was the passing mark. The board held its meetings before and after each examination.

During the year a total of five took the examination: four passed and one failed. It is understood that any candidate who fails to pass an examination is allowed to take another after three months but not before. Proper certificates, duly signed by the Director of Health, are issued to those who pass the examination, which are good for one year only.

There were forty-six classified masseurs at the end of 1922.

## REPORT OF THE MALARIA SURVEYS

[R. G. PADUA, *Senior Surgeon, Philippine Health Service. In charge of the Medical Side of the Investigation*]

### 1. IN LAGUNA PROVINCE

Malaria has been found responsible, directly and indirectly, for a large number of deaths in many sections of the Islands. In fact, the morbidity and mortality rates from this particular disease in almost all the provinces had been, in past years and on the whole, considerably enormous. An investigation of the situation with a view to find the most economic method of control became imperative. The advent of the representatives of the Rockefeller Foundation, headed by Dr. V. G. Heiser at the beginning of March, 1922, offered a great deal of hope to accomplish something practical along this line.

The conjoint efforts of the Philippine Health Service and of the Rockefeller Foundation became realized in the investigation of the disease in the Province of Laguna. As representatives of the two organizations in this work, Mr. W. D. Tiedeman, the Sanitary Engineer of the Foundation, and the writer started on March 23, 1922, the preliminary survey. The whole province was inspected for the purpose of gathering all necessary data, even in the most remote barrios, supplemented by statistical studies made on the records of the District Health Officer.

A detailed information regarding our findings has been incorporated in our report (PADUA, R. G. and TIEDEMAN, W. D.—*Preliminary Report on the Malaria Situation in the Province of Laguna*) submitted to the Director of Health on May 2, 1922, an excerpt of the General Résumé of which is hereinbelow transcribed:

#### GENERAL RÉSUMÉ

I. As a result of the preliminary investigation we found out that malaria has been prevalent in the Province of Laguna, and that the average mortality rate, from 1917 to 1921, inclusive, was 7.72 per 1,000 population. In the whole Philippine Archipelago, the annual death rates from the disease were: 3.67 in 1918, 3.4 in 1919, and 2.39 in 1920, per 1,000 population. On the other hand, in the registration area of the United States, such rates, *per 100,000 population*, were: 2.3 in 1915, 3.0 in 1916, 3.2 in 1917, and 3.1 in 1918.

II. The disease has been just as prevalent in the towns situated along the coast of Laguna de Bay as in those more inland and on low hills.



III. We have also observed, in field surveys, that the people in the smaller towns were, in large majority, poor, and their environments relatively insanitary. Apparently healthy individuals manifested the dull characteristic pallor, and in among many of them the spleen was palpable.

IV. The province is, as a rule, richly clad with evergreen vegetations of all kinds especially coconut trees. There is plenty of water, and in many of the municipalities visited, more or less sluggishly moving street ditches, small streams, and stagnant pools exist. Occasionally, tributaries of open canals run underneath the houses. *Anopheles* larvæ have been found, in abundance, in Tabon ditch near barrio of San Francisco of the town of Pila.

V. The curve of mortality rates from malaria, if no other conditions existed, seemed to follow that from all causes.

VI. The percentage fatalities of malaria per 100 cases have been apparently decreasing, for, in 1919, 1920, and 1921, such were 74.1, 53.6, and 27.6, respectively, with an average of 45.9 for the three years. It is interesting to note that considerable reduction of percentage fatalities by months occurred from the month of July, 1921, when coincidentally cinchonization was started.

VII. Of the total 9,397 cases and 4,316 deaths from malaria during 1919, 1920, and 1921, a large proportion occurred during the third quarter and the apices of both the morbidity and mortality curves fell in the month of August. The prevalence during rainy season is shown by the percentage distribution of the cases and deaths, and the morbidity and mortality rates, per 1,000 population, during these three years. Thus, the peak of the curve of morbidity rates, in the third quarter of the 3-year period, was 6.80 and that of mortality rates was 2.77 per 1,000 population.

VIII. It has been pointed out that the malaria question in this province revolves in: (1) the proper care and treatment of the malarial cases in the first quarter and (2) the control on the transmission of the disease in the third quarter of the year. The intensive effort for the free distribution of quinine, or such similar campaign, seemed to have accomplished some in diminishing the number of deaths, and in increasing, as has been previously explained, the number of recorded cases.

IX. In the small and poor town especially those in the northeastern section of the province, the disease has been most prevalent and severe. This includes Santa Maria, Mabitac, Famy, Siniloan, and Pañgil.

X. The seasonal occurrence of malaria in the different municipalities has been somewhat variable. However, in 15 of the 28 towns, there had been more cases reported during the third quarter of 1921, and in 53.3 per cent of these, the apex of the curve of percentage distribution by months fell in August. In other words, malaria has been more prevalent, in more than half the number of municipalities in the province, during the rainy weather.

XI. The mortality rates, in 1921, of the *población* on one hand and of the barrios on the other of each municipality, differed to a considerably great extent. Such monthly variations and discrepancies in the total of the two rates of each municipality should be more carefully investigated and correlated with the construction and location of the town, the habits and economic status of the people, the conditions favoring the development of the chief and particular *anopheles* mosquito species concerned in the

transmission of the plasmodium parasite, and the various factors that render either directly or otherwise the inhabitants vulnerable to the ravages of the disease.

After the preliminary investigation, it was decided that, in view of the possible inaccuracy of the diagnoses of some of the cases as found in the official records of the municipalities, an intensive campaign be conducted to adjust the approximate malarial indices in four representative section of the province. The *población* of Magdalena; the barrio of San Juan, Longos; the barrio of Linga, Pila; and the barrio of Masiit, Calawan, were, therefore, selected as the zones of investigation. Mr. W. D. Tiedeman of the Rockefeller Foundation was to take charge of the entomological and engineering side of the survey and the writer its epidemiological and clinical aspects. The latter consisted in the house-to-house visits to determine the sanitary and economic status, to make the necessary physical examination of the occupants including that of the blood for malarial parasite, and to treat the acute febrile and splenomegaly cases with series of intravenous quinine injection. These were supplemented by such data obtained from autopsies performed in the field.

The intensive work lasted from May 17, 1922, to August 12, 1922. A complete report (PADUA. R. G.—*Findings on the Malaria Investigation Within the Four Selected Zones in Laguna Province*) has been submitted to the Director of Health on January 22, 1923, the synopsis of which is thus transcribed.

#### SYNOPSIS OF THE "FINDINGS ON THE MALARIA INVESTIGATION IN THE FOUR SELECTED ZONES IN LAGUNA PROVINCE"

1. There had been visited altogether, in the four selected zones for investigation, 287 houses with approximately 387 families.

2. Of the 14 autopsies, 35.71 per cent were deaths due to malaria but the rest, although due to various other causes, yet likewise showed certain post-malarial lesions.

3. Of 2,267 apparently healthy persons originally examined, 62.15 per cent had enlarged spleen and 7.94 per cent parasite-positives.

4. Of 1,467 cases with enlarged spleen, 9.07 per cent were plasmodium carriers while of 908 cases without appreciable splenic enlargement, 5.18 per cent were parasite-positives.

5. Of 1,466 enlarged spleens, 60.44 per cent had extended downward and anteriority to the left midclavicular line against 39.56 per cent palpable only in the left anterior-axillary line. Of the enlarged spleens, 77.15 per cent measured less than 6 centimeters below the costal margin while 0.07 per cent as far down as the brim of the pelvis.

6. Of 935 individuals of 15 years old and under, 78.81 per cent had palpable spleen while of 1,415 adults, 51.73 per cent. Palpable and non-

palpable spleens occurred, among those under 1 year of age, in the proportion of 2.46 per cent and 2.43 per cent, respectively.

7. Parasite-positives occurred in 8.39 per cent of 953 cases of 15 years old and under, and 7.21 per cent of 1,415 adults.

8. Of 182 malaria carriers, 70.88 per cent harbored *P. vivax*, 19.23 per cent *P. malaria*, 5.49 per cent *P. falciparum*, and 4.40 per cent mixed infection.

9. Of 1,032 cases with hepatic enlargement, 84.40 per cent were among those with enlarged spleen and 7.07 per cent parasite-positives. On the other hand, of 1,329 cases without liver involvement, 8.05 per cent were malaria carriers.

10. Of 81 enlarged spleen with hepatic involvement, 69.14 per cent occurred in those with hæmoglobin estimate of less than 80 per cent while of 50 cases without appreciable enlargement in both organs, 38 per cent were in those of over 80 per cent.

11. Of 1,308 examinations, 33.56 per cent were found, in association with splenic enlargement, with diseases of the lungs and heart while of 1,051 cases with normal spleen, 48.24 per cent had either pulmonary tuberculosis or evidence of cardio-vascular lesions, or both.

12. Of 284 persons belonging to the well-to-do or very rich class in whom the spleen was palpable, 11.27 per cent harbored the plasmodium organism while of 755 splenomagalties among the poor, only 9.80 per cent were parasite-positives.

The recommendations offered, from medical and public health standpoint, may be summarized under the following headings:

1. The compulsory notification and accurate diagnosis of all fever cases in the whole province.

2. The vigorous and adequate treatment of all malaria cases and carriers.

3. The autopsy of all deaths from malaria.

4. The establishment, in a suitable place, of a well-equipped provincial hospital.

5. The collection and further classification and study of the anopheles mosquito fauna of the province with a view to institute suitable measures against growth and development.

6. The extensive and systematic public health education regarding the different aspects of malaria including the proper use of mosquito-nets.

7. The coöperation of the Government officials and other agencies in all measures tending to reduce the malarial morbidities and mortalities.

8. The obligation of the District Health Officer of Laguna to carry out effectively the recommendations and to send to the Director of Health reports from time to time regarding the work accomplished.

9. The reinvestigation of the province epidemiologically after 1 to 5 years to check the results of the campaign.

## 2. IN IWAHIG PENAL COLONY

Similar epidemiological investigation has been made, in compliance with paragraph 12, Special Order No. 10, dated October 21, 1922, of the Director of Health, in Iwahig Penal Colony, Puerto Princesa, Palawan. The survey lasted from October 26, 1922, to November 25, 1922. A complete report of the findings (PADUA, R. G.—*Findings on the Malaria Investigation in Iwahig Penal Colony*) was submitted to the Director of Health on January 3, 1923, the synopsis of which is as follows:

SYNOPSIS OF THE "FINDINGS ON THE MALARIA INVESTIGATION  
IN IWAHIG PENAL COLONY"

1. Malaria exists and is relatively prevalent in Iwahig Penal Colony. There are factors that favor its transmission.

2. Complete physical examination on all the colonists was made including examination of the blood for the type of malaria parasite. Field surveys were systematically conducted. Intensive quinine treatments by series of intravenous injections were given to the acute febrile cases.

3. Of 1,228 old residents, 48.78 per cent had enlarged spleen and 15.06 per cent were parasite-positives. Of 163 newcomers (Baguitos), 4.29 per cent showed splenic enlargement but none was found parasite-positive.

4. While among 599 enlarged spleens, 14.02 per cent were parasite-positives; and of 629 cases without splenic enlargement, 16.06 per cent were found malaria carriers.

5. Of 186 parasite-positives, 19.03 per cent were of *Plasmodium vivax*, 11.88 per cent of *Plasmodium malaria*, and 1.61 per cent of *Plasmodium falciparum*. Combined infection with *Plasmodium vivax* and *Plasmodium malaria* was found in 4.84 per cent of the total parasite-positives.

6. Of 620 cases with hepatic enlargements, 12.26 per cent were parasite-positives and 68.39 per cent occurred in association with enlarged spleen.

7. Of 47 children, 10 years old and under, 44.68 per cent had enlarged spleen and 25.54 per cent were parasite-positives. And among those, 11 to 15 years of age, 47.06 per cent showed splenic enlargement, of which 25 per cent were found positive for *Plasmodium* organism.

8. As a result of the intensive quinine treatments, the number of malaria admission during the month of November was reduced to nine, as against 86 during November, 1921, and 54 during same month in the average of five years ending 1920.

9. In terms of population, the colony has been losing daily, due to malaria alone, man's power and labor equivalent to 1.09 per cent of its actual strength during November of five years ending 1920, and 2.21 per cent during same month in 1921; but during the period of investigation, i. e., November, 1922, the loss was only 0.17 per cent. In other words, as a result of the malaria campaign, the colony has been regaining a rough estimate of about 86.51 per cent of what it used to lose during previous years from the acute attacks of the disease.

The recommendations proposed were practically along the same line as those enumerated above for the Province of Laguna, except that the colony physician instead of the district

health officer is to carry them out and that colonists who are prisoners from Bilibid instead of civilian population are to be dealt with.

#### COMMENT

Much has been obviously gained in these investigations. The splenic and parasitic indices of the localities surveyed have been accurately adjusted and consequently adequate measures, tending at least to reduce the morbidities to the minimum and at most to eradicate the disease from our midst, rendered feasible. Liberal and popular supports are, therefore, essential to accomplish practical results. The people are now enthusiastic of the apparent benefits attained by them, derived from the unselfish and disinterested labor of those who worked during the progress of the investigation. The service is aware that the continuation of the campaign should not now be abandoned. On the other hand, subsequent investigation in other parts of the Islands will undoubtedly be made.

#### ACTIVITIES OF THE INTERNATIONAL HEALTH BOARD OF THE ROCKEFELLER FOUNDATION IN THE PHILIPPINE ISLANDS

The activities of the International Health Board of the Rockefeller Foundation in the Philippine Islands during the year 1922 extended over a period of nine months. During this time, all efforts of the Board were exerted in the direction of improving nursing education, demonstrating more recent methods of malaria control, and in an attempt to define the hookworm problem of the Islands.

Three members of the International Health Board were detailed to duty in the Philippines to put through the preceeding program; Dr. Chas. N. Leach, in charge of operations; Mr. W. D. Tiedeman, a sanitary engineer of considerable experience; and Miss Alice Fitzgerald, formerly in charge of the division of nursing of the League of Red Cross Societies.

*Malaria control demonstration.*—Early in May, 1922, Mr. Tiedeman established his laboratory in Los Baños. An investigation was made in four different localities in Laguna Province, which included a medical survey carried on by Dr. R. G. Padua of the Philippine Health Service. Blood smears were taken and the splenic and parasitic indices determined. In a few cases of death, post-mortems were performed in order to check the diagnosis. Mosquito breeding experiments were carried out by Mr. Tiedeman and a classification made of the mosquitoes of the province. Various methods of larvæ destruction were tried out, *i. e.*, top minnows, poison, and larvæ-eating larvæ of the

larger mosquitoes. Experiments were carried on with a new type of top minnow which is indigenous in the Philippines, the *dermogenes*.

Considerable difficulty was encountered in the work undertaken in Laguna, first through the inaccuracy of the morbidity and mortality statistics submitted by the local authorities, death certificates often being made out by the municipal clerk and any condition associated with chills and fever being entered as malaria; and second, the area covered by the demonstration was too large to admit of proper supervision and in bad weather the roads were impassable. A great deal was accomplished, however, in stimulating the interest of the people in control measures and greater care is now being exercised in diagnosis. It is safe to say that previously there had been an overestimate of the malaria incidence through faulty diagnosis. No successful campaign can be waged against communicable diseases without first having an accurate definition of the problem. This requires accuracy in diagnosis and reporting and in turn this is dependent upon a properly trained medical and nursing staff.

*Nursing.*—The results in the field of nursing were extremely satisfactory during the past year. Miss Fitzgerald succeeded in winning the confidence of her Filipino colleagues and rendered valuable service in an advisory capacity in the Philippine General Hospital. Through her efforts the training schools of the various hospitals of Manila were brought together in a spirit of coöperation which, it is hoped, will result in the raising of standards of training.

Although unable to accomplish her first aim, *i. e.*, the organization of a central school for nurses, Miss Fitzgerald succeeded in her efforts to establish a school for public health nurses. This school graduated its first class of 30 nurses in January, 1923. These 30 nurses represent 20 of the 48 provinces of the Islands. An appropriation of ₱25,000 has been passed by the Legislature to cover the course for next year which will train 65 graduate nurses in the field of public health.

Through the efforts of Miss Fitzgerald, the Filipino Nurses Association was organized and a definite program laid out for the coming year. Three sections were formed as follows: (1) public health nursing; (2) nursing education; and (3) general nursing. A registry for nurses was established and an effort will be made to establish a uniform scale of fees.

It was also through the efforts of the Philippine Health Service that the establishment of the school for public health nursing was made possible. The financial support of the institution

was put up to the Philippine Health Service and through a readjustment of certain budget items it was possible to set aside ₱25,000 for this purpose.

*Intestinal parasites.*—Strangely enough, the incidence of intestinal parasites in the Philippine Islands has always been an undefined problem. Work carried on at Bilibid Prison has shown that the incidence of hookworm alone is well over 90 per cent. Later a survey was made in several towns of Cebu, and an incidence ranging from 40 per cent to 83 per cent was discovered. In Cebu not only hookworm infection was found, but a large number of frank cases of hookworm disease. This, of course, means a constant reinfection as a result of widespread soil pollution. After organizing the hookworm campaign in Cebu, the work was turned over by the International Health Board to the Philippine Health Service, and through the efforts of their representatives, the work expanded very rapidly until at present over ten thousand cases received free treatment. A cheap and effective remedy was introduced by the International Health Board and is being used exclusively. This drug, carbon tetrachloride, costs about two centavos a dose.

In order to check up the work of the older investigators, a resurvey is under way at Taytay in order to determine the accuracy of the hookworm incidence reported in 1909. The incidence given in 1909 was 11.6 per cent. Up to the present time, the incidence obtained by the representative of the International Health Board after going over 100 specimens is 40 per cent. This would indicate that there has been a general underestimate throughout the Islands.

*Scholarships.*—In order to strengthen the various departments of public health and medical education, the Rockefeller Foundation has sent five scholars to the United States for graduate study in nursing and medicine. Two men were sent from the Philippine Health Service to carry on advanced work at Johns Hopkins School of Hygiene—one in statistics and the other in general public health work. Another candidate was sent from the Medical School of the University of the Philippines to do graduate work in clinical pathology at Stanford University. Two nurses, one from the Philippine General Hospital and the other from the Office of the Public Welfare Commissioner are taking post-graduate work in Columbia University.

The selection of these students was entrusted to a committee composed of the Director of the Bureau of Science, chairman; the Dean of the Medical School, University of the Philippines; the Director of Health; the Associate Dean of the Medical School

of the University of the Philippines; the Superintendent of the School of Nursing, Philippine General Hospital; and two representatives of the International Health Board. All applications receiving favorable consideration were submitted to the Governor-General for his approval before being forwarded to the Rockefeller Foundation.

#### SAN LAZARO HOSPITAL

During 1922, 4,906 patients have been treated in this hospital, 860 of which were the remaining patients admitted before 1922, and 4,046 were admitted during the latter.

Of these 4,096 patients, 2,991 were discharged, 13 were transferred to other hospitals, 254 lepers were transferred to Culion Leper Colony, 11 escaped and 574 died during the year, 1,063 remained in the hospital at the end of 1922.

The following table shows the classification of the total patients treated in the hospital during 1922 by diseases or causes of their confinement:

*Total patients treated in San Lazaro Hospital during 1922*

Diseases or causes of confinement	Remaining from 1921	Admitted during 1922	Total patients treated
1. Acne.....		1	1
2. Alcoholism, chronic.....		2	2
3. Anglo-cholecystitis, acute.....		1	1
4. Appendicitis.....		1	1
5. Ascariasis.....		3	3
6. Asthenia, post grippal.....		3	3
7. Beriberi.....	1	2	3
8. Bronchitis.....		6	6
9. Carcinoma.....	1	1	1
10. Cellulitis.....	1	1	1
11. Cervicitis and endometritis.....		78	78
12. Cervicitis, endometritis and syphilis.....		4	4
13. Chancroid.....		1	1
14. Cholera.....	15	60	75
15. Cholera carriers.....	5	225	230
16. Chronic nephritis.....		1	1
17. Chronic entero-colitis.....		1	1
18. Diarrhea.....		2	2
19. Diphtheria.....	1	81	82
20. Diphtheria carriers.....		9	9
21. Dysentery.....	1	119	120
22. Dyspepsia, acute.....		2	2
23. Eczema.....		1	1
24. Elephantitis, lethargica.....		13	13
25. Elephantiasis.....	1		1
26. Enteritis.....		13	13
27. Epithelioma of the penis.....		1	1
28. Erysipelas.....		6	6
29. Erythema.....		1	1
30. Farunculosis of the face.....		1	1
31. Gastralgia.....		3	3
32. Gastritis, acute.....		1	1
33. Gastro duodenal ulcer.....		1	1
34. Gastro enteritis.....	1	73	74
35. Gastro entero-clitis.....		1	1
36. Gonorrhea and syphilis.....		30	30
38. Gonorrhea.....	10	271	281
39. Herpes zoster.....	2	1	3
40. Hydrophobia.....		1	1
41. Ileocolitis.....		1	1
42. Impetigo.....		4	4
43. Indigestion, acute.....		3	3



## Total patients treated in San Lazaro Hospital during 1922—Continued

Diseases or causes of confinement	Remaining from 1921	Admitted during 1922	Total patients treated
44. Influenza.....	5	169	174
45. Insanity.....	458	395	853
46. Laryngitis.....		1	1
47. Leprosy.....	219	492	711
48. Malaria.....	4	109	113
49. Meningitis, cerebro-spinal.....		2	2
50. Meningitis.....		5	5
51. Measles.....	1	142	143
52. Morphinism, chronic.....		1	1
53. Mumps.....	1	21	22
54. Myelitis.....		1	1
55. Neurasthenia.....		1	1
56. Neurosis.....		1	1
57. Observation for bubonic plague.....		18	18
58. Old folds and invalid.....	43	91	134
59. Panophthalmitis.....	1		1
60. Parkinsonian syndrome.....		1	1
61. Pheriperic neuritis, undetermined.....		1	1
62. Pneumonia, broncho.....		20	20
63. Pneumonia, grippal.....		3	3
64. Pneumonia, lobar.....		8	8
65. Psoriasis.....		1	1
66. Rheumatism, acute.....		1	1
67. Ringworm.....		1	1
68. Scabies.....	1	3	4
69. Smallpox.....	1		1
70. Syphilis.....		10	10
71. Tetanus.....	4	69	73
72. Tonsillitis.....		12	12
73. Tuberculosis, enteritis.....		2	2
74. Tuberculosis, pulmonary.....	52	457	509
75. Typhoid fever.....	24	556	580
76. Typhoid carriers.....		96	96
77. Typhoid vaccine reaction.....		1	1
78. Tropical ulcers.....		1	1
79. Ulcer, anæsthetic.....		1	1
80. Ulcer of penis, chancroidal.....		1	1
81. Ulcerative colitis, acute.....		1	1
82. Uncinariasis.....		9	9
83. Urticaria.....		1	1
84. Vaginitis.....		1	1
85. Varicella.....	7	282	289
86. Varioloid.....	1		1
87. Whooping cough.....		5	5
88. Yaws.....	1	30	31
Totals.....	860	4,046	4,906

The following table shows the termination or final disposition of the grand total of 4,906 patients treated in this hospital during 1922:

Diseases or causes of confinement	Discharged	Escaped	Transferred to other hospital	Died	Remaining at the end of 1922
1. Acne.....	1				
2. Alcoholism.....	2				
3. Angio, cholecystitis, acute.....	1				
4. Appendicitis.....			1		
5. Ascariasis.....	3				
6. Asthenia, post grippal.....	2				1
7. Beriberi.....	2				
8. Bronchitis.....	6				
9. Carcinoma.....					1
10. Cellulitis.....				1	
11. Cervicitis and endometritis.....	78				
12. Cervicitis, endometritis and syphilis.....	4				
13. Chancroid.....	1				
14. Cholera.....	62			12	
15. Cholera carriers.....	229			1	
16. Chronic nephritis.....	1				
17. Chronic enterocolitis.....	1				

\* Died of broncho-pneumonia.

Diseases or causes of confinement	Dis- charged	Escaped	Trans- ferred to other hospital	Died	Remain- ing at the end of 1922
18. Diarrhea.....	2			25	2
19. Diphtheria.....	55				
20. Diphtheria carriers.....	9				
21. Dysentery.....	100			15	5
22. Dyspepsia, acute.....	2				
23. Eczema.....	1				
24. Elephantiasis.....	1				
25. Encephalitis lethargica.....	1			1	4
26. Enteritis.....	13				
27. Epithelioma of the penis.....	1				
28. Erythema.....	1				
29. Erysipelas.....	5				
30. Furunculosis of the face.....	1				
31. Gastralgia.....	3				
32. Gastritis, acute.....	1				
33. Gastro duodenal ulcer.....	1				
34. Gastro enteritis.....	63		1	8	2
35. Gastro entero-colitis.....				1	
36. Gonorrhea.....	196	2			83
37. Gonorrhea and syphilis.....	30				
38. Herpes Zooster.....	3				
40. Hydrophobia.....				1	
41. Ileocolitis.....				1	
42. Impetigo.....	4				
43. Indigestion, acute.....	3				
44. Influenza.....	168			2	4
45. Insanity.....	296	1		71	485
46. Laryngitis.....	1				
47. Leprosy.....	148	3	b 254	16	290
48. Malaria.....	94		1	10	8
49. Meningitis.....	2			2	1
50. Meningitis, cerebro-spinal.....				2	
51. Measles.....	132		1	6	4
52. Morphinism, chronic.....	1				
53. Mumps.....	21	1			
54. Myelitis.....	1				
55. Neurasthenia.....	1				
56. Neurosis.....	1				
57. Observation for bubonic plague.....	18				
58. Old folks and invalid.....	30	1		47	56
59. Panophthalmitis.....	1				
60. Parkinsonian syndrome.....	1				
61. Pherepheric neuritis undetermined.....	1				
62. Pneumonia, broncho.....	12			8	
63. Pneumonia, grippal.....	3				
64. Pneumonia, lobar.....	5				
65. Psoriasis.....	1				
66. Rheumatism, acute.....	1				
67. Ringworm.....	1				
68. Scabies.....	3				1
69. Smallpox.....	1				
70. Syphilis.....	9			1	
71. Tetanus.....	42			28	3
72. Tonsillitis.....	12			1	
73. Tuberculosis enteritis.....	1				
74. Tuberculosis pulmonary.....	250	1		179	79
75. Typhoid fever.....	418	1	7	130	24
76. Typhoid carriers.....	94		2		
77. Typhoid vaccine reaction.....	1				
78. Tropical ulcers.....	1				
79. Ulcer, anæsthetic.....	1				
80. Ulcer of penis, chancroidal.....	1				
81. Ulcerative colitis, acute.....				1	
82. Uncinariasis.....	9				
83. Urticaria.....	1				
84. Vaginitis.....	1				
85. Varicella.....	286				
86. Varioloid.....	1				
87. Whooping cough.....	5				
88. Yaws.....	25			1	5
Total.....	2,991	11	13	574	1,063

<sup>b</sup> Transferred to Cullion Leper Colony.

## ADMINISTRATIVE DIVISION

*Personnel.*—New changes were made among classified and unclassified service. Thru strict economy, service positions were left vacant during the year. Greater activities were therefore rendered by the remaining employees due to the increase in the number of patients during the year.

*Subsistence.*—During the year the amount of ₱195,464.32 was expended for subsistence in 1922 against ₱219,827.39 in 1921. The following figures show the statement of expenses for subsistence during the years 1921 and 1922:

	1921	1922
On hand previous report.....	₱3,358.90	₱1,659.32
Purchase during the year.....	218,127.81	197,088.98
Total to be accounted for.....	221,486.71	198,748.30
Consumed during the year.....	219,827.39	195,464.32
Remaining on hand.....	1,659.32	3,283.98
Average cost of subsistence per day.....	602.46	535.72
Average number of persons subsisted per day.....	1,051.00	1,250.00
Average cost of subsistence per day.....	.57	.427

*Linen and steam laundry.*—During the year, 3,611 pieces of linen were manufactured for use of the hospital, and 7,932 pieces were repaired or mended. An average of 1,600 pieces of linen were washed every day in the steam laundry during the year.

*Morgue and crematory.*—A total of 681 dead bodies were admitted in the morgue during the year, of which 65 were cremated in the hospital crematory and 616 turned over to funeral parlors for burial. One hundred and twenty-four autopsies were performed in the morgue.

*Miscellaneous expenses.*—During the year the amount of ₱301,517.10 were expended for miscellaneous expenses of the hospital, which is ₱21,405.05 less than that of the previous year, the amount expended being ₱322,922.15. Of the total amount of ₱317,910.00 allotted for miscellaneous expenses, a superavit of ₱16,392.90 was saved during 1922. Following is a detailed statement of the expenditure for miscellaneous expenses for the years 1921 and 1923:

Miscellaneous expenses (classified by accounts)	1921	1922
K-e-7 Street car tickets .....	329.00	342.25
K-e-8 Hire of carromata .....		7.30
K-d Freight express and delivery service .....		4.50
K-d-6 Postal, telegram, telephone and cable service .....	(1)	1,491.88
K-f-2 Electric lighting .....	5,051.49	5,276.40
K-f-3 Gas consumption .....	13,841.16	15,173.30
K-g Miscellaneous service .....	5,886.60	4,892.46
K-i Consumption of supplies and materials .....	292,145.20	261,376.71
K-k Gratuities .....	1,788.60	2,054.50
K-m Traveling expenses of non-government employees .....		5.80
K-n Maintenance and repairs .....	3,880.10	892.00
(1) Expenses included in the general fund of Central Office .....	322,922.15	301,517.10
Miscellaneous expenses (classified by departments)		
K1 Administrative .....	100,036.43	95,702.39
K2 Contagious Department .....	26,020.96	33,795.38
K3 Tuberculosis Department .....	12,613.63	10,032.01
K4 Leper Department .....	47,304.15	47,962.66
K5 Insane Department .....	93,305.64	75,965.73
K6 Old Invalid Department .....	9,016.19	7,959.83
K7 Pharmacy .....	18,942.17	22,307.07
K8 Laundry Department .....	12,365.94	5,086.70
K9 Morgue and Crematory .....	3,317.04	2,705.33
	322,922.15	301,317.10
Furniture and equipment purchased .....	5,219.70	543.64

*Hospital income.*—The amount of ₱44,141.60 was collected as the total income of the Hospital, covering the year 1922, classified as follows:

For patients and visitors' fees.....	₱41,892.99
For cremations.....	1,890.00
For miscellaneous receipts.....	358.61
Total .....	44,141.60

*Constructions and repairs.*—No new construction was undertaken in the hospital during the year. The following repairs and alterations were performed:

One of the animal houses converted into a school for sanitary inspectors.

The old main building painted all over.

General repairs and painting were made in the contagious, insane, and leper departments.

Alterations were made in the male insane department providing six more cells for violent cases, one pavilion for pay patients, and a general ward with four cells for criminal insanes.

All windows in the female insane department were repaired and screened.

Repairs were made to the door of the big steam auto-cleve of the laundry.

Alterations and repairs were made to the old Veterinary School of the University of the Philippines and the building converted into the Director's residence.

*Recommendations.*—The following new constructions are recommended:

One dormitory for nurses of 60-bed capacity.

One more ward for contagious diseases, similar to the present cholera ward.

One building for the insane persons suffering from contagious and communicable diseases.

One more cottage for negative lepers.

The following alterations and repairs are recommended for the coming year:

Construction of an additional wing to Ward I for accommodation of the hospital laboratory.

Repairs of toilet and bathroom of Ward I.

Installation of slope sinks to three wards of the contagious department.

Construction of wall partitions in both male and female insane wards for separation of patients.

Alteration of one of the rooms to be used for therapeutic purposes in the male insane ward, with bath tube, etc.

Installation of toilet and bathroom in the male suspects' ward of the leper department.

Installation of dish sinks in the dining rooms of both male and female leper wards.

Every room in the private ward should be provided with wash basins and wardrobes.

Complete installation of electric bell system in the pay ward. Repairs of all the wire screens of the pay ward.

Installation of one more washing machine in the laundry for emergency purposes.

Repairs to the heater-room of the laundry.

General repairs to the leaking roofs of the leper, insane, and old and invalid departments.

Minor repairs to the toilets in several wards.

## **BILIBID HOSPITAL**

### **PERSONNEL**

- 1 Chief, Sanitation Division, Philippine Health Service
- 1 Resident Physician, Philippine Health Service
- 1 Chief Nurse, Bureau of Prisons
- 1 Pharmacist, Bureau of Prisons
- 1 Surgical Nurse, Bureau of Prisons
- 1 Sanitary Inspector, Bureau of Prisons
- 3 Practicantes, Bureau of Prisons
- Prisoner assistants, Bureau of Prisons

Each of the main departments of the Bureau of Prisons located outside of Manila, namely, Iwahig Penal Colony and San Ramon Penal Farm, is provided with a hospital, the Philippine Health Service being charged with its operation.

#### MORBIDITY

Of the newly-arrived prisoners, the greatest number of admissions to the hospital were due to intestinal parasites, drug habits, and skin diseases; and of the old prisoners, pulmonary tuberculosis and other respiratory diseases, skin diseases, and articular rheumatism.

#### MORTALITY

Based on the actual number of prisoners in Bilibid Prisons, viz., 8,630, the deaths which occurred in this institution, viz., 108, gave a general death rate per annum of 12.40 per thousand.

The death rates per 1,000 prisoners were 5.90 for general diseases, 0.35 for dysenteries, and 6.26 for pulmonary tuberculosis, showing a slight decrease for pulmonary tuberculosis and a slight increase for dysenteries in comparison with previous year. Of the aforesaid, 6 were prisoners who were returned from outside station and who died in Bilibid Prisons of diseases contracted at other points, and one of legal execution. Deducting this number from the total number of deaths as previously stated, there were 101 left, or 11.59 per thousand per annum, chargeable to this institution.

During the year there were 5 deaths at Corregidor Station, 44 at Iwahig, 2 at San Ramon, and 6 at San Lazaro Hospital, making a total of fifty-seven (57) deaths.

Based on the total number of prisoners passing through Bilibid, including outside stations, viz., 11,361, the total number of deaths of 165 gave a general death rate per annum for the entire Bureau of Prisons of 12.80 per thousand, showing a decrease of 3.20 per thousand as compared with that of last year.

#### BIRTHS

Six children were born in Bilibid Hospital during the year. Of these, three were males and three were females; five legitimate and one illegitimate.

#### INTESTINAL PARASITES

Twenty-four and five hundredths per cent (24.05) of all admissions to the hospital this year were found to have intestinal parasites (and in addition to this 121 cases were treated as

complications of other diseases), showing a decrease of 14.17 per cent over that of last year.

All prisoners entering Bilibid were quarantined from 5 to 10 days during which stool examinations were made. Many cases were treated by Doctor Leach, of the Rockefeller Foundation.

#### FILARIA

One thousand eight hundred and ninety-eight (1,898) blood examinations were made for filaria from newly arrived prisoners with the findings of eighteen (18) positives (or about 1 per cent), 14 from returned prisoners with 9 positives (or about 64 per cent), and 14 old-timers that were all negatives, making a total of 1,926 specimens. No cases of filaria were transferred from Bilibid to any outside station.

No filarial cases found during the past year have shown any pathological effects from filarial infection.

#### VENEREAL DISEASES

*Gonorrhœa*.—A total of 360 examinations of urine were made, out of which, 67 were found positive for gonorrhœa. All gonorrhœa cases were segregated in a division of the contagious department and held therein until free from infection.

*Syphilis*.—There were 16 cases of syphilis treated in the hospital during the year. There were also 5 primary, secondary, and tertiary forms. There were 14 Wasserman tests made, of which, 5 were found positive.

#### CHOLERA VIBRIO EXAMINATIONS

During the year there were 32,143 stool specimens sent to the Bureau of Science to be examined for cholera vibrio and none of the cases was found to be carrier, although some of them were positive for non-agglutinating vibrio.

#### CONTAGIOUS SKIN DISEASES

One hundred forty-two cases of contagious skin diseases were treated during the year, a detailed statement for report on which, is written on a separate page.

#### RESPIRATORY DISEASES

Respiratory diseases constitute one of the gravest pathological conditions afflicting the prisoners. During the year we treated 110 cases of pulmonary tuberculosis, of which, 53 ended fatally; 54 lobar pneumonia with 15 deaths; 27 cases of asthma and 1 case of pleurisy with no death. The mortality rate from tuberculosis was so high that some measures were suggested in the

last annual report, but in vain. During the year one tubercular patient was transferred to Santolan Tuberculosis Colony.

#### DRUG HABIT

There were 234 cases of opium addicts treated during the year; but the treatment of these cases has given indefinite results. The majority of the patient after discharge from the Bureau of Prisons resumed the same old habits resulting in reconvictions and readmission to the hospital.

#### BERIBERI

Three cases of beriberi patients were admitted to the hospital during the year. Two of these were developed outside.

#### CONTAGIOUS DISEASES

Besides the contagious skin diseases mentioned in the preceding page, there were six cases of other contagious diseases treated during the year. Of these, five were mumps, and one varicella.

#### MENTAL DISEASES

During the year, 51 cases of insanity (melancholia, paranoia, and violent type) developed within the Prison cell. Some insane patients who were not quite dangerous were transferred to San Lazaro Hospital.

#### DYSENTERY

This year there were treated in this hospital, 2 cases of amœba coli, 3 cases of intestinal amœbiasis, 2 cases of bacillary dysentery, and 14 other dysenteries of undetermined etiology, making a total of 21 with a mortality of 3.

#### LEPROSY

During the year there has been no case of leprosy found among the prisoners in this institution.

#### DENTAL DISEASES

There were treated, among the out-patients, 486 cases of dental diseases, of which, 261 were due to dental caries, 16 to gingivitis, 148 to stomatitis, and 61 to aleolar abscess. During the year there was a dentist designated to perform the work in this hospital.

#### VACCINATIONS

All newly-arrived prisoners, upon arriving in the quarantine section, were vaccinated. Vaccination of old prisoners was per-



formed three times yearly except when there occurred a new case of smallpox in which case, all prisoners in the dormitory where the case was found, were revaccinated.

#### OUTSIDE STATIONS

*Mortality.*—During the year, 57 deaths were registered at outside stations as shown below.

	General diseases	Tubercu- losis	Total
Corregidor.....	5	0	5
Iwahig.....	30	14	44
San Lazaro.....	4	2	6
San Ramon.....	2	0	2
Grand total.....	41	16	57

#### RECOMMENDATION

No recommendations are made since during the four preceding years, no action whatsoever was taken thereon.

*Report of the Prison Sanitation Division*  
(BILIBID HOSPITAL)

Sick Report of the year ending December 31, 1922

[Classified according to the INTERNATIONAL LIST OF DISEASES]

Diseases	Remain- ing De- cember 31, 1921	Admitted			Complications			Dispositions				
		New <sup>1</sup>	Old <sup>2</sup>	Return <sup>3</sup>	Total	New	Old	Return	Died	Trans- ferred	Dis- charged	Re- main- ing
1. Typhoid fever: Typhoid fever.....			1		1						1	
2. Malaria: Malaria.....			9	1	10						10	
10. Influenza: Influenza.....			4		4						4	
14. Dysentery: Amoeba coli..... Amoebiasis, intestinal..... Bacillary dysentery.....			2 3 2		2 3 2				1 2		2 2	
19. Other epidemic diseases: Dysentery..... Dengue fever..... Mumps..... Varicella..... Yaws.....	2		14 24 5 1 1		14 27 5 1 1		2				16 27 5 1 2	
20. Purulent infection and septicaemia: Infected wound..... Infected scoul, sole foot, right.....			3 1		3 4						4 1	
27. Beriberi: Beriberi.....			2		3		1				3	
28. Tuberculosis of the lungs: Pulmonary tuberculosis.....	52	7	46	5	58				54	4	34	18
31. Abdominal tuberculosis: Tuberculosis of caecum..... Tuberculosis of intestine..... Tuberculosis peritonitis.....			1 1 4		1 1 6			1	1 1 3			
34. Tuberculosis of other organs: Tuberculosis of kidney..... Tuberculosis of testicle..... Tuberculous abscess..... Tuberculousadenitis.....			1 2 1 4		1 2 2 4				1 2 2 4		1 2 2 4	
37. Syphilis: Primarysyphilis..... Syphilis..... Syphilitic..... Tertiarysyphilis.....			2 13 1 1		3 15 1 1		1 1 1 1				3 15 1 1	



## Report of the Prison Sanitation Division—Continued

Diseases	Remain- ing De- cember 31, 1921	Admitted			Complications			Dispositions				
		New <sup>1</sup>	Old <sup>2</sup>	Return <sup>3</sup>	Total	New	Old	Return	Died	Trans- ferred	Dis- charged	Re- main- ing
77. Acute and ocarditis: Acute myecaritis.....			2		2				2			
79. Organic diseases of the heart: Heart disease.....			1		1						1	
Mitral regurgitation.....			1		1				1			
83. Diseases of the veins (varices, hemorrhoids, phleb- itis, etc.):												
Hemorrhoids.....	1		4		4		1				5	
84. Diseases of the lymphatic system (lymphangitis, etc.):												
Abscess of groin.....	1		3		3		2				4	
Axillary adenitis.....			1	1	1			1			1	1
Cervical adenitis.....			1		1		1	1			1	
Inflammation of gland.....			1		1						1	
85. Hemorrhage; other diseases of the circulatory sys- tem:												
Epistaxis.....			1		1						1	
Internal hemorrhage.....			3		3				1		1	1
86. Diseases of the nasal fossae: Polypus of nasal fossa.....				1	1						2	
89. Acute bronchitis: Acute bronchitis.....			1		1						1	
Suffocating bronchitis.....			1		1						1	
90. Chronic bronchitis: Chronic bronchitis.....	1		4		4		1				5	
92. Pneumonia: Inflammation of the chest.....			3		3						3	
Lobar pneumonia.....			25		25		2		2		21	2
Pneumonia double.....	3				3				3			
Pneumonia left.....			4		4				4			
Pneumonia right.....	1	1	19	1	21		1		6		16	
93. Pleurisy: Empyema.....			1		1						1	
Pleurisy.....			1		1		1				1	
94. Pulmonary congestion, pulmonary apoplexy: Hypostatic pneumonia.....												
95. Gangrene of the lung: Gangrene of the lung.....			1		1				1			
96. Asthma: Asthma.....			7		7				6			1
		3	23	1	27						25	2

98. Other diseases of the respiratory system (tuberculosis excepted):	5	5	5
Spitting of blood.....			
99. Diseases of the mouth and annæxæ:	7	7	7
Alveolar abscess.....	1	1	1
Dental caries.....	2	2	2
Gingivitis.....			
100. Diseases of pharynx:	2	3	3
Tonsillitis.....	1		
102. Ulcer of the stomach:	1	1	1
Gastric ulcer.....			
103. Other diseases of the stomach (cancer excepted):	1	1	1
Gastralgia.....	2	2	2
Indigestion.....	1	1	1
Stomach.....	2	2	2
104. Diarrhœa and enteritis (under 2 years):	2	2	2
Dyspepsia.....			
105. Diarrhœa and enteritis (2 years and over):	2	2	2
Diarrhœa.....			
106. Ankylostomiasis:	108	121	121
Hookworm disease.....			
107. Intestinal parasites:	7	7	7
Ascariasis.....	1	1	1
Ascaris lumbricoides.....	493	494	493
Tæniads.....	2	2	1
108. Appendicitis and typhilitis:			
109. Hernia, intestinal obstruction:	1	1	1
Hernia.....			
Inguinal hernia.....	2	2	2
Ventral hernia.....	14	15	14
110. Other diseases of the intestines:	1	1	1
Constipation.....			
Fistula in ano.....	1	2	2
Fistula of rectum.....	2	7	5
113. Cirrhosis of the liver:	2	1	3
Atrophic cirrhosis of liver.....			
115. Other diseases of the liver:	1	1	1
Cholecystitis.....			
Hepatitis.....	1	2	2
117. Simple peritonitis (nonpuerperal):	3	3	3
Peritonitis.....			
118. Acute nephritis:	2	2	2
Acute nephritis.....	1	1	1

<sup>1</sup> Admitted to Hospital under diagnosis made upon admission of the prisoners into the prison quarantine.

<sup>2</sup> Admitted to Hospital under diagnosis made at any time subsequent to the prisoners passing from quarantine to prison proper.

<sup>3</sup> Admitted to the Hospital under diagnosis made upon return of the prisoners from outside station.

## Report of the Prison Sanitation Division—Continued

Diseases	Remain- ing De- cember 31, 1921	Admitted			Complications			Dispositions				
		New <sup>1</sup>	Old <sup>2</sup>	Return <sup>3</sup>	Total	New	Old	Return	Died	Trans- ferred	Dis- charged	Re- main- ing
120. Bright's disease: Interstitial nephritis . . . . .	7	1	14	1	16		1		7		14	2
Nephritis . . . . .			1		1						1	
Parenchymatous nephritis . . . . .			1		1				1			
122. Other diseases of the kidneys and annexa: Urinary suppression . . . . .			1		1						1	
124. Diseases of the bladder: Cystitis . . . . .	1											
Incontinence of urine . . . . .			1		1						1	
127. Nonvenereal diseases of the male genital organs: Epididymitis . . . . .			2		2						1	
Hidrocèle double . . . . .			4		7						2	
Septic orchitis . . . . .	1	3	1		1						5	3
132. Salpingitis and other diseases of the female genital organs: Ovarian . . . . .			1		1						1	
133. Nonpuerperal diseases of the breast (cancer ex- cepted): Abscess of breast . . . . .			1		1							
Mammary abscess . . . . .			1		1						1	
134. Accidents of pregnancy: Pregnancy . . . . .	2	5	8		13						15	
136. Other accidents of labor: Childbirth . . . . .	1										1	
137. Puerperal septicæmia: Puerperal cellulitis . . . . .		1			1						1	
143. Furuncle: Boil . . . . .			1		1						1	
144. Acute Abscess: Abscess . . . . .		1	3		4						3	1
Abscess of arm . . . . .			2		2						2	
Abscess of leg . . . . .			1		1						1	
Cellulitis . . . . .	1		11		11						12	
Multiple abscess . . . . .	2		1		1		1				3	
145. Other diseases of the skin and annexa: Eczema . . . . .	1		5		5						5	1
Kerpsoster . . . . .			1		1						1	
Scabies . . . . .	5	14	56		70		1				71	4
Skin diseases . . . . .		3		2	19						18	1
Tinea imbricata . . . . .	3	7	25		32		2				35	
Ulcer . . . . .			1		1						1	
Ulcer of leg . . . . .			3		3		1				3	
Ulcer of right foot . . . . .			2		2						2	



*Report of the Prison Sanitation Division—Continued*

Diseases	Remain- ing De- cember 31, 1921	Admitted			Complications			Dispositions				
		New <sup>1</sup>	Old :	Return :	Total	New	Old	Return	Died	Trans- ferred	Dis- charged	Re- main- ing
189. Cause of death not specified or defined—Contd.												
Observation for insomnia.....			4		4						4	
Observation for ovaries hysterical.....			1		1						1	
Observation for spitting of blood.....	1										1	
Observation for stomach ache.....		1	22		23						23	1
Observation for syphilis.....		1			1				1		1	
Observation for tuberculosis.....	13	10	78	5	93		2				93	13
Grand total.....	187	1,093	1,281	50	2,424	5	54	4	108	21	2,367	116

<sup>1</sup> Admitted to Hospital under diagnosis made upon admission of the prisoners from outside station.

<sup>2</sup> Admitted to Hospital under diagnosis made at any time subsequent to the prisoners passing from quarantine to prison proper.

<sup>3</sup> Admitted to the Hospital under diagnosis made upon return of the prisoners into the prison quarantine.



*Report of the Prison Sanitation Division*

(BILIBID HOSPITAL)

[Surgical Report for the Fiscal Year ending December 31, 1922]

Diagnosis	Operation	Number of cases	Number of operations	Anæsthesia		
				Stevaine	Cocaine	Ether
Sebaceous cyst.....	Excision and sutured.....	2	2	.....	1	.....
Crush wound, forehead penetrating.....	Sutured.....	1	1	.....	.....	.....
Phimosis.....	Circumcision.....	1	1	.....	7	.....
Wound, mutilated, right fingers.....	Sutured and drained.....	1	1	.....	.....	.....
Appendicitis, acute.....	Appendectomy.....	2	2	.....	2	1
Primary syphilis.....	*606" injection.....	1	1	.....	1	.....
Fracture, complete, second, phalanx, right finger.....	.....	1	1	.....	1	.....
Fistula, Chiu.....	.....	1	1	.....	1	.....
Lipoma.....	.....	1	1	.....	.....	.....
Strangulated hernia, left.....	Herniotomy.....	1	1	.....	.....	.....
Fistula in no.....	Resection.....	1	1	.....	1	1
Phimosis, complete.....	Circumcision.....	1	1	.....	1	.....
T. B. abscess of the groin, right.....	Incision.....	1	1	.....	.....	.....
Grand total.....	.....	21	21	1	15	2

# Report of the Prison Sanitation Division

(BILIBID HOSPITAL)

[Mortality Report for the Year Ending December 31, 1922]

[illegible]



*Report of the Prison Sanitation Division*

(BILIBID HOSPITAL)

COMPARISON OF DEATH RATES (For tuberculosis only)		COMPARISON OF CONTAGIOUS DISEASES	
Years	Rate per 1,000	Years	Number of cases
1912.....	18.70	1912.....	138
1914.....	10.86	1914.....	69
1916.....	5.15	1916.....	12
1917.....	6.70	1917.....	24
1918.....	10.70	1918.....	177
1919.....	9.50	1919.....	20
1920.....	7.50	1920.....	23
1921.....	8.50	1921.....	54
1922.....	6.30	1922.....	6

COMPARISON OF SICK RATES		COMPARISON OF DEATH RATES	
Years	Rate per 1,000	Years	Rate per 1,000
1914.....	103.10	1906.....	85.57
1915.....	93.00	1914.....	18.94
1916.....	103.80	1916.....	7.74
1917.....	69.60	1917.....	12.30
1918.....	73.70	1918.....	21.10
1919.....	68.20	1919.....	17.10
1920.....	52.50	1920.....	12.80
1921.....	52.20	1921.....	13.80
1922.....	53.90	1922.....	11.40

*Report of the Prison Sanitation Division*

BILIBID HOSPITAL

[Comparative statement of contagious diseases]

1919

Months	Measles	Mumps	Varicella	Varioloid	Smallpox	Total	Cholera			
							Cultures taken	Cases	Carriers	Death
January.....		6		2		8	9,035			
February.....		1				1	7,740			
March.....							8,310			
April.....		1				1	6,177			
May.....		2				2	7,599			
June.....							7,387			
July.....							7,629			
August.....		1				1	7,300	1	4	
September.....		2	1			2	8,231	1	10	
October.....		2				2	7,807		1	
November.....	1					1	7,866			
December.....							6,944			
Total.....	1	16	1	2		20	91,715	2	16	

1920

Months	Measles	Mumps	Leprosy	Varioloid	Whooping cough	Total	Cholera			
							Cultures taken	Cases	Carrier	Total
January.....		8		1		9	8,259			
February.....		3			1	4	7,602			
March.....		2		1		3	7,963			
April.....				1		1	6,941			
May.....		1			1	2	7,498			
June.....		1				1	7,229			
July.....							7,062		1	
August.....					1	1	7,176			
September.....							7,052			
October.....							7,635			

*Report of the Prison Sanitation Division—Continued*

BILIBID HOSPITAL—Continued

Months	1920								
	Measles	Mumps	Leprosy	Varioloid	Whooping cough	Total	Cholera		
							Cultures taken	Cases	Carrier
November.....	1		1			2	7,228		
December.....							6,188		
Total.....	1	15	1	3	3	23	87,823		1

Months	1921								
	Measles	Mumps	Varicella	Varioloid	Leprosy	Total	Cholera		
							Cultures taken	Cases	Carriers
January.....		1	10			11	6,930		
February.....		2	26			28	5,764		
March.....		1	7			8	5,481		
April.....			3			3	4,376		
May.....		1	1			2	6,322		
June.....		3				3	6,816		
July.....		2				2	6,046		
August.....		1				1	6,480		
September.....		1				1	6,546		
October.....		1				1	5,949		
November.....		1				1	5,176		
December.....							5,782		
Total.....		14	47			61	71,667		



## Report of the Prison Sanitation Division—Continued

Diseases	Quarantine		Out patients			Total	
	Number of cases	Number of treatments	Sick call	Brigades	Number of cases	Number of treatments	Number of cases
46. Other tumors (tumors of the female genital organs excepted):							
Cyst.....			2		9		2
Cyst of neck.....			1		15		1
Hæmatoma.....			6		24		6
Lipoma.....			3		12		1
Sebaceous cyst.....			3		2		3
47. Acute articular rheumatism:							
Articular rheumatism.....			106		630		106
Rheumatism.....			115		665		115
75. Diseases of the eyes and their annexa:							
Conjunctivitis.....			226		1,313		226
Foreign body in eye.....			16		74		16
Keratitis.....			4		9		4
76. Diseases of the ears:							
Abscess of ear.....			1		7		1
Inflammation of ear.....			22		108		22
83. Diseases of the veins (Varices hæmorrhoids, phlebitis, etc.):							
Hæmorrhoids.....			1		4		1
84. Diseases of the lymphatic system (lymphangitis, etc.):							
Abscess of axilla.....			3		19		3
Abscess of groin.....			15		104		15
Adenitis of inguinal.....			1		2		1
Adenitis of neck.....			24		187		24
Axillary adenitis.....			14		124		14
Cervical adenitis.....			1		12		1
85. Hæmorrhage; other diseases of the circulatory system:							
Epistaxis.....			2		39		2
Hæmorrhage.....			2		12		2
99. Diseases of the mouth and annexa:							
Alveolar abscess.....			61		319		61
Dental caries.....			261		1,006		261
Gingivitis.....			16		100		16
Stomatitis.....			148		811		148
100. Diseases of the pharynx:							
Tonsillitis.....			8		29		8
102. Ulcer of the stomach:							
Erosion of stomach.....			1		5		1
109. Hernia, intestinal obstruction:							
Hernia.....			4		40		4





*Report of the Prison Sanitation Division—Continued*

Diseases	Quarantine		Out patients			Total	
	Number of cases.	Number of treatments	Sick call		Brigades	Number of cases	Number of treatments
			Number of cases	Number of treatments			
147. Diseases of the joints (tuberculosis and rheumatism excepted):							
Ankylosis of joint.....			2	16			16
Arthritis.....			28	238			238
148. Amputation:							
Amputation.....			1	8			8
149. Other diseases of the organs of locomotion:							
Rheumatism of muscle.....			24	151			151
150. Congenital malformations (stillbirths not included):							
Phimosis.....			3	15			15
167. Burns (conflagration excepted):							
Burn.....			31	133			133
Burn by boiling liquid.....			5	31			31
171. Traumatism by cutting or piercing instruments:							
Incised wound.....			137	726			726
Punctured wound.....			76	434			434
Wound by cutting instrument.....			1	12			12
175. Traumatism by other crushing (vehicles, railways, landslides, etc.):							
Crushing by bumpers.....			39	226			226
Wound by crushing.....			158	389			389
185. Fractures (cause not specified):							
Fracture.....			2	19			19
Sprains.....			166	911			911
186. Other external violence:							
Bruise.....			134	671			671
Contusion.....			109	600			600
External causes.....			4	4			4
Laceration.....			13	71			71
189. Cause of death not specified or ill defined:							
Chest pain.....			61	258			258
Fistula.....			2	17			17
Inflammation.....			2	8			8
Grand total.....	4,139	4,139	3,484	19,468	5,504	46,660	70,267

## CULION LEPER COLONY

[DR. JOSE AVELLANA BASA, *Senior Medical Inspector, P. H. S.*  
*Chief, Culion Leper Colony*]

The year 1922 might well be regarded as the year of activity in the history of the Culion Leper Colony. During such period, and in part thru the special interest shown by his Excellency, the Governor-General Leonard Wood, many important changes were accomplished by the Philippine Health Service in the colony. The fairly liberal appropriation given this year by the Philippine Legislature and the further allotment of a special appropriation by the Council of State, have made possible the undertaking of many much needed changes in the colony.

As an additional feature, the Philippine Anti-Leprosy Society, organized in the latter part of 1921 with the sole purpose of coöperating with the Government towards the welfare of the lepers confined in the colony through the wide-spread publicity given in the early part of the year of 1922 of the conditions prevailing in Culion, attracted the attention and sympathy of the general public, who did much towards relieving the immediate needs of the inmates.

Other organizations, such as the Knights of Pythias and many others, which are too numerous to mention, have also enthusiastically given their valuable coöperation to the Government in this humanitarian work. To these organizations the Government and the Culion inmates are particularly highly indebted. This combined and uniform welfare work undoubtedly gave the inmates of this colony great encouragement to look forward towards a brighter prospect in their lives, as shown by their excellent behavior and absolute contentment. In fact, not a single escape was registered during the whole year. Admissions to the colony was unusually great, showing that those unfortunates who had heretofore defied the vigilant eyes of the authorities voluntarily submitted themselves to segregation and agreed to come to Culion with the hope for better chances of recovery.

On Easter Sunday, as a result of the appeal of Governor-General Wood to the general public, thousands of pieces of clothing, cigarettes and magazines were distributed to the lepers, special attention being given to the most needy. A second distribution

of clothes, toys, cigarette, candy, and magazines was held on Christmas week, every inmate of the colony receiving some gift. This was due largely to the appeal made by the Philippine anti-Leprosy Society. A new victrola was donated for use in the hospitals by Sherman, Clay & Co. of San Francisco, California. The Jesuit Fathers and the Protestant missionaries contributed many gifts for the children and the needy.

The Clean-up Week, Christmas, and Rizal Day were celebrated by the colonists with an unusual cheerfulness of spirit.

In spite of the measles and varicella epidemics, which broke out during the early part of the year not only in the leper out also in the non-leper settlement, the sanitary conditions of the colony were, in general, satisfactory.

1. *The study of the food problem.*—A food experiment was personally conducted in the early part of January by Miss Hartley Embrey, food chemist and dietitian of the Rockefeller Foundation, assisted by Dr. Miriam A. Griffin, senior medical inspector, Philippine Health Service, Nurses Bartola Estoista and Emilia Barros, Mr. Eleno Logroño and the staff of the colony, with the object of improving the leper diets, as well as to introduce a menu which, while being balanced and agreeable to all, would not exceed the per capita cost of the daily leper ration.

As an immediate result of this experiment, the leper ration became improved by issuing as much vegetables as available for their daily rations. The raising of vegetables was encouraged amongst the lepers by popular lectures or talks, and by means of personal persuasion.

By the middle part of the year, a home vegetable garden contest was organized, and prizes offered. Tools and seeds were given to those inmates who volunteered to cultivate home vegetable gardens. This was made possible, thanks to the enthusiastic coöperation of the lepers themselves, whose Advisory Board invested some of their money to finance the important undertaking. At the close of the contest, there were 71 contestants registered each with an average of 10 square meters of cultivated area. The vegetables raised in these gardens consisted mostly of egg-plants, pechay, mustard, kale, lettuce, radishes, tomatoes, sweet-potatoes, etc. There have been gardeners who raised enough vegetables in their gardens to enable them to sell their products to the Government for use in the hospitals.

Another result derived from said experiment is the improvement of the cooked rations now given to a group of inmates,

who were heretofor depending on raw rations. It is, however, very much regretted that, in view of the lack of sufficient funds, the scheme recommended by Miss Embrey could not be carried out in full (although very much desired) since vegetables raised in this colony were very limited. Most of those issued to the lepers were purchased from Manila and the transportation thereof caused no little loss to the Government on account of mishandling, damage, and shortage.

The diet of the hospital patients has also been given special attention during the year, under the management of the members of the medical staff. Special and extra diets were prepared and served to patients who were especially recommended by their physicians to receive such kind of diets.

The tables attached hereto will show the differences in the amount of beef, vegetables, and fish consumed in the lepers' mess either or in the form of canned salmon. In general, the ration of the ordinary leper has also been improved not only in quantity but also quality; particular attention having been given to providing vegetables which consisted mostly of mongo sprouts, camote tops, camoteng-kahoy, radishes, squash, cow peas, string beans, pechay, mustard, etc.

As a corollary to the study of the food situation, the advisability of investigating the feasibility of making Culion more or less self-supporting, vegetables and livestock and poultry farming and hog raising were seriously considered. With this end in view Mr. Pastorfide, farm adviser of the Bureau of Agriculture, was ordered by the Director of that Bureau to make a survey of this island. Mr. Pastorfide arrived on January 18 and left on February 22, 1922. His findings and recommendations are summarized as follows:

(a) The lowland, known as Pilapilan, is regarded as the best soil for vegetable raising. Gardening in this place should be done preferably by negative lepers.

(b) The swampy place in Siuk, in the Peninsula of Culion, is the best soil for the cultivation of gabe.

(c) Ugnisan, which is located in the western part of the island, is recommended as the best place for hog and cattle raising and poultry farming.

In general, he reports that Culion is a dry and rocky place, except in a few places which can be utilized for gardening or stock raising. Finally, he submitted a plan involving the expenditure of about ₱100,000. In view of the lack of sufficient funds, this undertaking was not carried out in full, as recommended.

Again, and with the same object, Messrs. F. G. Galang, horticulturist of the Bureau of Agriculture, and Severo S. Ponce, forest supervisor, of the Bureau of Forestry, came on June 1, 1922, to make a survey of the island with the special object of selecting suitable tracts of land that could be utilized for agricultural purposes, and which could be connected with the colony proper. In view of the fact that most of their recommendations were found absolutely impracticable at present on account of the lack of appropriation, steps were taken to increase by all means the vegetable supply of the colony on a more economical basis.

The offer of Mr. H. V. Constenoble to investigate the soil at certain places of the island was taken advantage of, and he was consequently authorized to make a reconnoissance, in July. Among others, he recommended Balded as the best place for vegetable gardens. He was given all necessary assistance, and his appointment at ₱100 a month was secured from proper authorities during the latter part of the year. As a side activity, Mr. Constenoble was also charged to help in the campaign of vegetable raising amongst the lepers, not only by practical advise but also by giving them seedlings or seeds of the most important vegetables. The gardens have already furnished some vegetables, but nothing definite can as yet be reported as to the full achievement of this undertaking.

In the meanwhile, the recommendation of Messrs. Galang and Ponce will be taken into consideration, and will be carried out as far as appropriations will permit in the coming year.

2. *Water supply.*—The water situation of the colony which, for the past year, was already found to be inadequate to supply the demands of the colony, has deserved study on the part of the higher authorities. Early in the year Mr. Mañosa, sanitary engineer, visited Culion to study conditions and to make recommendations. Mr. G. G. Stroebe, hydraulic engineer, Bureau of Public Works, also made investigations on the problem of water supply, assisted by Mr. Mañosa. A survey for a water supply for the proposed negative colony at Siuk was also made. After ten days' stay in the colony he submitted a report which may be summarized as follows:

The writer believes that there has been great waste in the water supplied to Culion Leper Colony. It is his conviction from the data gathered that if this waste be eliminated the colony will have plenty of water until its activities expand. Unless special fire protection is desired and unless an enlarged service is wanted for Topside, for new hospitals, for new sewers, for street sprinkling, for lawns, and fountains, the present

system ought to be able to furnish a supply of water equal to the past needs of the colony for water. However, when a fire protection system is inaugurated, then with it, as a corollary, will go an improved service for Topside, and an increased supply of water for the many other beneficial purposes mentioned in this report.

The conclusion above seems to coincide with that Mr. Mañosa in that there exists an unnecessary wastage of water in the colony. As a solution of the problem, he recommended a scheme of increasing the water supply, submitting also the estimate of the cost of the project. This whole scheme, however, was to be undertaken after final reports of the gaugings of certain water streams shall have been taken during the latter part of the dry season. Consequently, his estimates were included in the list of projects for improvements submitted to the Governor-General in June. On account, however, of the necessity of cutting down several items of the already authorized expenditures, and due to the fact that some of the proposed dam sites were found dry during the height of the dry season, this project was postponed for the coming year. However, two of the corrective measures recommended were carried out by Mr. Mañosa, as follows:

(a) The replacement of the 2½-inch main pipe for a 4-inch one round the topside hill in Calle Mindanao. This materially helped by increasing the pressure of the water in the hospitals and clinics and in the other buildings in that part of the colony.

(b) Regulations governing the strict supervisions of the use of the water in the colony were adopted and enforced faithfully throughout the year to the extent that during the height of the season the colonists suffered comparatively little, if at all, from water shortage.

Acting upon the suggestion of Mr. Stroebe, the two artesian wells located in Pilapilan were tested with a view to using same as an auxiliary supply during the hot season. The experiment proved satisfactory. In view, however of the fact that the appropriation for the proposed project of extending the water supply had to be postponed, the Deney's spring tank was repaired and 2½-inch pipe laid down to the Sanitary Barrio, thus increasing somewhat the water supply of that populated district of the colony.

In Balala, the water supply was found to be insufficient during the dry season due to the lack of flow in the spring, and the increased number of population residing in the district. This, of course, increased the demands for said valuable supply. Another handicap felt during the dry season was the lack of an adequate tank to which the water could be pumped in amounts suitable to satisfy the demands of the building depending on

same. Wastage of water has been noticed, but owing to the lack of proper tools, sufficient number of efficient personnel, leakages could not be satisfactorily remedied as desired. Another auxiliary tank should be installed at a higher elevation than the present one which is now being constructed, and which will probably be completed by the early part of January of the coming year. Regulations to prevent unnecessary waste of water were enforced among the residents. Due to the condition of the old Fairbanks Morse pump, it is feared that the present electrical driven pump will not be entirely satisfactory, but we shall be compelled to use it while the old one is undergoing repair.

3. *Reorganization of personnel.*—One of the most note worthy and important features of the year is the reorganization of the personnel of the colony staff by sections, namely, the medical, pathological, chemical, and administrative. With this distribution of work, it has been possible to carry out a more systematic treatment of lepers and a more satisfactory administration of the colony.

During the year an additional force of eight doctors (clinicians), twelve nurses, and a pharmacist was made available, which greatly improved the medical service, both in the leper and in the non-leper settlements of the colony. With this increased force it became possible to generalize the treatment to almost every inmate of the colony who is physically able to undergo treatment. It similarly became possible to make a more careful study of each individual case, with the result that several cases were pronounced negative or improving. As a side activity, the hospital service was reorganized and improved.

Further details regarding this topic are being reserved for discussion by the acting chief physician in his supplementary report.

4. *Fish supply.*—In spite of the fact that the price of large fish increased to ₦0.40 a kilo the supply of fresh fish furnished was comparatively less than that of last year. A total of 46,787,34 kilos was purchased from fish concerns during the year with an average of 25 kilos per person per day. Consequently, salmon had to be distributed oftener than during the past year in lieu of the fresh fish, to make up the shortage. Beans or dried fish were substituted occasionally when available. Table A, appended hereto, will show the amount of salmon issued as substitute.

This shortage of supply was mainly due to the fact that during the early part of the year many of the fish traps were blown down by the wind which was unusually strong during



this year. The medical treatment caused some of the fishermen to neglect their trade, and others have even decided to abandon it altogether for the sake of availing themselves of the medical treatment afforded them. By the middle part of July, August, and September, about 130 traps were installed, but on account of the stormy weather which prevailed in the latter part of the year, some of these were blown down. It was noted that schools of fishes were not so plentiful during the year.

5. *Construction Work*.—Several construction projects were accomplished during the year. Those which were done by administration and completed at the close of the year are the following: additions to hospital and clinics, alterations of barracks, male nurses' quarters, American leper quarters, barracks for laborers, medical depot, colony, moving of cemetery, two emergency hospitals, enlarging of kitchen and bakery, etc., extension of female nurses' quarters, hospital kitchen, colony, improving sanitary barrio, addition and alterations to morgue, warehouse, or new bodega in the colony proper, Guam lepers' quarters, nursing aids' dormitories, hospital kitchen and mess hall, Pilapilan clinic, Pilapilan nursing aids' quarters, new cemetery moving of houses and rebuilding of same, help to lepers in erecting and repairing their houses.

At the close of the year, several other projects were well under way.

The constructions which were done by contract by the Cranston Engineering Co. were the following: Bachelor's quarters, 4-apartment house, three bungalows, chemical plant, clinic verandas, and four dormitories for lepers.

At the close of the year, the four dormitories for lepers and one bungalow in Balala were completed. The rest of the buildings were 99 per cent complete. It should be noted that the contractors, for some reasons or other, were not able to complete the construction of all the buildings at the time specified by the contract which expired on October 27, 1922.

6. *Maintenance and repairs*.—No allotment for maintenance and repairs was provided for in the colony during the year 1922 in spite of the reiterated requests made for same. On the other hand, the activities of the colony were increased to such an extent that the force of laborers, both in the colony proper and in Balala, had to be increased for the sake of satisfactory and efficient management of the colony. Supplies were received so frequently and in great quantities that their unloading and transferring from the warehouse to their destinations have necessitated the employment of more laborers. At the same time,

sanitation in Balala had to be attended to on account of the increased population in this settlement. Consequently, in view of the fact the amount allotted for emergencies was hardly sufficient to meet the exigencies of the service, wages of laborers were paid out of the construction fund.

To prevent this undesirable condition, recommendations for maintenance of work and increase of personnel for the handling of supplies were included in the budget for the year 1923.

#### RECOMMENDATIONS

The necessity for a more adequate personnel in the administrative section of the colony was keenly felt during the past year, on account of the many increased activities which have developed subsequent to the desire of the Government to run the colony on a more up-to-date and firm basis. It is, therefore, recommended that the new positions and increase of salaries in the estimates for 1923 be approved.

Allotments for maintenance and repairs should be provided for, as recommended in the estimates for 1923, in order that the colony may be efficiently managed. More appropriation for new constructions to relieve the congestion of increased population should be made available for the year 1923, since it is expected that many more cases will be admitted in the future.

The condition of our warehouse and storerooms is indeed very critical, not only because of their being very old, but also of their being too small for the amount of supplies that have to be kept therein. This is one of our serious handicaps during the year, and should be remedied at the earliest possible opportunity. In the projects for constructions and alterations provided for in the special allotment for last year, there was included an item for an additional part of the bodega; but, for obvious reasons, this was cut down and postponed, and in lieu thereof a medical depot was established for the sake of economy. The repair of the warehouse and the dock and the reconstruction of the old wooden storeroom and the construction of another additional bodega, appeal to us as the most absolutely necessary projects that should be accomplished as early as possible, as recommended.

The allotment of funds to finance some of the most important projects postponed in the year 1922 should be made available during the year 1923. Among these, the projects of increasing the water supply should first be attended to, as well as the project tending to the best solution of the food problem which has not as yet been satisfactorily solved.

## SUPPLEMENTARY REMARKS

Table K shows the cost of subsistence per capita per day during the year 1922, giving the amounts expended by months in each of the messes.

Table L is a comparative statement of expenses incurred in subsisting the lepers, laborers, minor employees drawing Filipino subsistence, and the mess employees. The perusal of this table will disclose that the average cost per capita per day during the last five years varied sensibly, not only in the leper mess but mostly in the Filipino and employees' messes.

It is also noted that during 1920 the cost per capita in the lepers' mess was higher than in any of the four years studied. The rate was ₱0.296 as against ₱0.214 in 1918; ₱0.256 in 1919; ₱0.2423 in 1921; and ₱0.2554 in 1922. The rate per capita in the laborers' and the Filipino messes has been high in the year 1920, whereas the rate per capita in the employees' mess has been somewhat lower (₱2.63) than that of 1921 (₱2.68) but higher than that of 1922 (₱2.29). No complete data is obtained for the years 1918 and 1919.

The explanation for the high rate in 1920 is that the cost of nearly all food articles consumed in the messes particularly in the leper mess has been higher in that year than in the years 1921 and 1922.

In spite of the fact that the cost per capita of the leper subsistence was gradually reduced, the leper diet has been steadily improved as far as possible, although this improvement did not, of course, reach the desired requirement of a satisfactory "balanced diet." The study of the accompanying lists of weekly rations will confirm this assertion. It will be particularly noted from the said lists that the ration of the ordinary leper, which we are particularly interested in for the last two years on account of its apparent deficiency, has been somewhat improved not only in variety but also in amount.

More statistical data on the food question are being prepared. Comments on this topic are not as yet ended.

TABLE A.—*Food supplies furnished the lepers in lieu of fish ration*

1920

(No detailed record)

Month	Number of days without fish	Kind and quantity					
		Salmon at ₱0.34 each	Mongos at ₱0.24 a kilo	Beans at ₱0.36 a kilo	Sotanjon	Dried fish	Amount
January 1 to December 31..	.....	21,712	9,250	4,840	.....	.....	₱11,264.84
Total .....	.....	21,712	9,250	4,840	.....	.....	11,264.48

TABLE A.—Food supplies furnished the lepers in lieu of fish ration—Continued.

1921

Month	Number of days without fish	Kind and quantity					Amount
		Salmon at ₦0.18 each	Mongos at ₦0.16 a kilo	Beans at ₦0.30 a kilo	Sotanjon at ₦1.01 a kilo	Dried fish at ₦0.36 a kilo	
January.....	10	1,875	690				₦447.90
February.....	14	1,987	713.6				471.84
March.....	20	2,115	1,220				575.90
April.....	15	2,573	739.4				581.44
May.....	13	6,533	917.6				1,322.76
June.....	5	4,982	694.6				1,007.86
July.....	9	5,981	912.6				1,222.60
August.....	9	7,235	1,082.8				1,475.55
September.....	1	4,786	40				867.88
October.....	4	7,343	990.8				1,480.27
November.....	10	8,579	1,440		40	30	1,825.82
December.....	12	8,794		1,394.4	114	59	2,137.62
Total.....	122	62,783	9,441.2	1,394.4	154	89	13,417.44

1922

Month	Number of days without fish	Kind and quantity					Amount
		Salmon at ₦0.16 each	Mongos at ₦0.16 a kilo	Beans at ₦0.36 a kilo	Sotanjon at ₦0.36 a kilo	Dried fish at ₦0.36 a kilo	
January.....	21	10,543		1,590			₦2,681.00
February.....	13	9,212	1,506.6				2,128.65
March.....	17	7,693		989.4	80		1,945.98
April.....	27	9,634	998.2				2,116.46
May.....	18	8,695		850			2,045.00
June.....	16	7,426	690.4		50		1,648.38
July.....	9	6,837		768			1,643.88
August.....	16	7,335	556				1,591.54
September.....	25	11,750		200			2,422.00
October.....	19	9,342	400			133.5	1,992.46
November.....	18	8,425	860		100	50	1,930.40
December.....	30	13,504	553.2	220			2,885.11
Total.....	229	110,396	5,664.4	4,617.4	230	183.5	25,030.86

TABLE B.—Comparative table of fish delivered by fish contractors to the general leper kitchen for the years 1920, 1921, and 1922

Year	Quantity of large and small fish	Amount
1920.....	Kilos 136,046	₦28,385.70
1921.....	191,018.5	55,041.84
1922.....	129,589	46,487.34
Total.....	456,653.5	129,914.88

<sup>a</sup> Prices of large and small fish increased from ₦0.20 to ₦0.30 and from ₦0.175 to ₦0.275 a kilo, respectively, effective September 16.

<sup>b</sup> Effective January 1, the price of large fish was increased from ₦0.30 to ₦0.40, while that of the small fish was decreased from ₦0.275 to ₦0.175. Mostly, large fish are furnished.

## AVERAGES

1920.—28 kilos per person in 312 fish days, or 90 grams per day.

1921.—37 kilos per person in 312 fish days, or 119 grams per day.

1922.—25 kilos per person in 312 fish days, or 25 grams per day.

TABLE C.—Comparative table showing quantity and amount of beef consumed by the colony for the last three consecutive years

1920

	Quantity	Amount
	<i>Kilos</i>	
Employees' mess.....	6,899.2	₱4,461.00
Laborers' mess.....	1,990.8	1,232.21
Lepers' mess.....	26,830	18,286.92
Total.....	35,720	23,980.13

1921

	Quantity	Amount
	<i>Kilos</i>	
Employees' mess.....	9,135.5	₱6,851.52
Laborers' mess.....	3,187	2,390.25
Lepers' mess.....	40,592.5	30,444.50
Total.....	52,915	39,686.27

1922

	Quantity	Amount
	<i>Kilos</i>	
Employees' mess.....	13,755.5	₱9,927.78
Laborers' mess.....	5,123	3,740.04
Lepers' mess.....	75,974.5	55,700.76
Total.....	94,853	69,368.58

TABLE D.—Amount of vegetables and fruits raised by lepers and sold to the Government

Month	Amount
January .....	₱741.10
February .....	480.61
March .....	1,010.12
April .....	518.57
May .....	511.49
June .....	897.64
July .....	509.70
August .....	749.87
September .....	1,692.50
October .....	1,058.01
November .....	1,777.61
December .....	1,414.58
Total .....	11,361.80

N. B.—Main articles raised, in point of quantity: (1) Banana, (2) Kamoteng kahoy, (3) Pineapples, (4) Corn, (5) Kangkong, (6) Sitao, etc.

TABLE E.—Table showing the amount expended for gratuities of lepers, during the year 1992

## (GENERAL GRATUITY)

Period	Number of weeks	Population	Amount
	<i>Weeks</i>		
January 1 to April 15.....	15	5,141	₱12,044.30
April 16 to July 28.....	15	5,047	10,918.30
July 29 to October 9.....	10	4,990	7,345.60
October 10 to December 31.....	12	5,232	9,411.70
Total.....	52	20,410	39,719.90

## (PUBLIC WORKS IN LIEU OF GRATUITY)

Month	Number of laborers	Amount of payroll
January.....	265	₱1,555.82
February.....	279	1,933.96
March.....	278	1,795.95
April.....	320	1,849.75
May.....	224	1,175.80
June.....	203	898.00
July.....	207	1,233.36
August.....	179	903.96
September.....	114	793.16
October.....	155	952.18
November.....	152	893.54
December.....	180	989.90
Total.....	2,556	14,975.38

Average number of laborers per month, 213.

Average wage of a laborer, ₱6 per month.

TABLE F.—Movement of the population by sex and nationality

	Ameri- can	Euro- pean	Chamorros		Chi- nese	Jap- anese	Filipinos		Total
	Male	Male	Male	Fe- male	Male	Male	Male	Female	
PRESENT									
January 1, 1922.....	8	1	11	2	12	1	3,171	1,767	4,973
Admitted.....	2			1	3	1	588	224	819
Readmitted.....	1						5	1	7
Born.....							27	30	57
Total.....	11	1	11	3	15	2	3,791	2,022	5,856
Died.....	2				1		382	160	545
Discharged.....	1						38	32	71
Transferred to San Lazaro.....	* 3				b 1		* 3	* 1	8
Escaped.....									
Remaining, December 31, 1922.....	5	1	11	3	13	2	3,368	1,829	5,232

TABLE F.—*Movement of the population by sex and nationality—Continued**Movement of population*

Month	Admissions	Readmissions	Births	Deaths	Discharges	Escapes	Transferred to San Lazaro	Marriages
January.....			4	45				5
February.....	292		3	34	5		3	7
March.....			7	51				1
April.....	59		3	58	12		2	3
May.....			4	53	11			3
June.....			8	61	7			5
July.....	108	6	6	37	16			7
August.....			1	45	8			2
September.....			2	33	5			3
October.....			7	33	1		<sup>a</sup> 2	4
November.....	235	1	6	46	1		<sup>a</sup> 1	3
December.....			6	49				4
Total.....	819	7	57	545	71		8	48

<sup>a</sup> Transferred to San Lazaro Hospital to undergo a surgical operation, or to settle some personal matter.

<sup>b</sup> To leave the Islands under bond.

*Population by nationality, sex, and civil condition, December 31, 1922*

Nationality	Male	Female	Civil status	Male	Female
American.....	5		Single.....	943	278
European.....	1		Married.....	1,535	922
Chamorro.....	11	3	Widowed.....	154	167
Chinese.....	13		Children.....	768	465
Japanese.....	2				
Filipino.....	3,368	1,829		3,400	1,832
	3,400	1,832	Total.....	5,232	
Total.....	5,232				

Population, January 1, 1922 .....	4,973
Population, December 31, 1922 .....	5,232
Increase in Chamorro .....	1
Increase in Chinese .....	1
Increase in Japanese .....	1
Increase in Filipino .....	259
Decrease in American .....	3

## BIRTHS

Total for one year .....	57
Legitimate .....	41
Illegitimate .....	16
Conceived at the Colony .....	55
Conceived outside .....	2
Deaths among these births .....	12

TABLE G.—*Marriages*

Age	Male		Female									
			15-20 years		21-25 years		26-30 years		31-40 years		Over 40 years	
	Single	Widowed	Single	Widowed	Single	Widowed	Single	Widowed	Single	Widowed	Single	Widowed
15-25 years.....	7	...	3	...	3	1	...	...	...	...	...	...
21-25 years.....	19	1	6	2	5	3	2	1	...	1	...	...
26-30 years.....	7	...	3	...	1	1	1	...	...	1	...	...
31-40 years.....	7	3	...	...	1	1	5	1	1	1	...	1
41-50 years.....	...	3	...	...	...	...	1	1	...	...	...	1
Over 50 years.....	1	...	...	...	...	...	...	...	...	...	1	...
Total.....	41	7	12	2	9	6	9	3	1	3	1	2

Of these forty-eight marriages two of the contracting parties were Chamorros (natives of Guam) married to Filipina women; there were no divorced persons married; no known relationship or affinity.



TABLE H.—Table showing supply issued to lepers during 1922

Months	Blankets, cotton		Shirts, chambray		Undershirts		Trousers, khaki		Drawers, cotton		Mats, buri		Amount
	Unit price, ₹1.33		Unit price, ₹2.17		Unit price, ₹1.18		Unit price, ₹3.01		Unit price, ₹0.89		Unit price, ₹0.36		
	Quan- tity	Amount	Quan- tity	Amount	Quan- tity	Amount	Quan- tity	Amount	Quan- tity	Amount	Quan- tity	Amount	
January.....	291	₹387.03	216	₹468.72	216	₹254.88	216	₹650.16	216	₹192.24	798	₹287.28	₹1,953.03
February.....	131	147.23	3	6.51	3	3.54	3	9.03	3	2.67	798	₹287.28	₹1,953.03
March.....	61	81.13	51	110.67	141	166.38	50	150.50	42	37.38	70	25.20	571.26
April.....	1,702	2,263.66	149	323.33	90	106.20	144	433.44	141	125.49	203	73.08	3,325.20
May.....	3,797	5,050.01	3,117	6,763.89	3,117	3,678.06	3,115	9,376.15	3,115	2,772.35	4,952	1,782.72	29,423.18
June.....	100	133.00	217	470.89	100	118.00	6	18.06	100	89.00	115	41.40	870.35
July.....	27	35.91	4	8.68	4	4.72	27	81.27	27	24.03	4	1.44	156.05
August.....	46	61.18	46	99.82	46	54.28	.....	.....	46	40.94	200	72.00	328.22
September.....	44	58.52	342	742.14	261	307.98	.....	.....	44	39.16	197	70.92	1,218.72
October.....	404	537.32	385	835.45	248	292.64	73	219.73	226	201.14	131	47.16	2,133.44
November.....	.....	.....	6	13.02	6	7.08	.....	.....	.....	.....	.....	.....	20.10
December.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	6,603	8,781.99	4,536	9,843.12	4,232	4,993.76	3,634	10,938.34	3,960	3,524.40	6,670	2,401.20	40,482.81

TABLE I.—Table showing varicella cases that occurred during the year 1922 in the colony proper and non-leper settlement, Balala-Jardin

Months	Colony proper		Non-Leper Settlements	
	Cases	Deaths	Cases	Deaths
January.....	9	.....	.....	.....
February.....	6	.....	.....	.....
March.....	2	.....	.....	.....
April.....	1	.....	.....	.....
May.....	5	.....	.....	.....
June.....	.....	.....	.....	.....
July.....	28	.....	.....	.....
August.....	.....	.....	.....	.....
September.....	.....	.....	1	.....
October.....	.....	.....	.....	.....
November.....	.....	.....	3	.....
December.....	2	.....	3	.....
Total.....	53	.....	7	.....

TABLE J.—Table showing measles that occurred during the year 1922 in the colony proper and in Balala-Jardin

Months	Colony proper		Non-leper settlement	
	Cases	Deaths	Cases	Deaths
January.....	.....	.....	.....	.....
February.....	1	.....	.....	.....
March.....	62	1	.....	.....
April.....	90	1	.....	.....
May.....	22	1	.....	.....
June.....	3	.....	6	.....
July.....	.....	.....	48	2
August.....	.....	.....	19	.....
September.....	.....	.....	9	.....
October.....	.....	.....	.....	.....
November.....	.....	.....	.....	.....
December.....	1	.....	.....	.....
Total.....	179	3	82	2

TABLE K.—Subsistence, 1922

Months	Employees' mess		Filipino mess	
	Average number of persons	Amount	Average number of persons	Amount
		<i>Pesos</i>		<i>Pesos</i>
January.....	38	2,844.56	10	245.52
February.....	40	2,803.73	10	240.38
March.....	35.50	3,182.46	10	235.60
April.....	48	4,141.20	13	312.00
May.....	65.25	4,773.69	18	429.04
June.....	71.50	4,601.04	19.50	416.52
July.....	71.66	4,641.63	23	499.10
August.....	73.66	4,690.17	22	463.76
September.....	74.66	4,368.00	18	346.14
October.....	71.33	4,245.76	23.33	436.17
November.....	67	4,381.80	20	411.00
December.....	51.50	4,629.85	19	500.65
Total.....	708.50	49,303.89	205.83	4,535.88
Average monthly.....	59	4,108.65	17.15	377.99

TABLE K.—*Subsistence, 1922—Continued*

Months	Laborers' mess		Lepers' mess	
	Average number of persons	Amount	Average number of persons	Amount
		<i>Pesos</i>		<i>Pesos</i>
January.....	179	2,730.10	4,951	33,764.86
February.....	202	2,788.40	5,114	35,225.33
March.....	254	2,779.52	5,162	32,964.53
April.....	302	3,279.72	5,126	48,902.04
May.....	346	3,400.14	5,101	37,793.31
June.....	428	4,545.36	5,040	37,300.00
July.....	412	3,342.48	5,060	45,175.32
August.....	360	4,140.36	5,051	39,714.55
September.....	339	3,508.65	5,009	35,511.99
October.....	345	3,415.98	5,110	46,344.63
November.....	257	2,612.15	5,254	34,527.23
December.....	217	2,264.31	5,253	47,928.64
Total.....	3,641	39,807.17	61,231	475,652.93
Average monthly.....	303.5	3,317.26	5,102.5	39,637.74

## AVERAGE COST OF SUBSISTENCE PER CAPITA DAILY

1. Employees' mess.....	P2.290
2. Filipino mess.....	.725
3. Laborers' mess.....	.359
4. Lepers' mess.....	.2554

TABLE L.—*Comparative table showing expenses for subsistence consumed by the Culion Leper Colony during the last five consecutive years*

Kind of mess	1918			
	Average number of persons	Average cost monthly	Average cost per person per day	Amount
Lepers' mess.....	4,761.5	P31,002.15	P0.214	P372,025.31
Laborers' mess.....	158.0	1,643.22	.342	19,718.60
Filipino mess.....	9.6	204.58	.70	2,455.01
Employees' mess.....	20.1	1,054.45	1.72	12,653.65
Total.....				406,853.07

Kind of mess	1919			
	Average number of persons	Average cost monthly	Average cost per person per day	Amount
Lepers' mess.....	4,600	P35,817.24	P0.256	P429,806.98
Laborers' mess.....	195.6	2,510.61	.422	30,127.34
Filipino mess.....	16.6	341.77	.677	4,101.23
Employees' mess.....	26	1,306.33	1.64	15,675.99
Totals.....				479,711.54

Kind of mess	1920			
	Average number of persons	Average cost monthly	Average cost per person per day	Amount
Lepers' mess.....	4,769.7	P42,942.86	P0.296	P515,314.31
Laborers' mess.....	132	3,137.39	.574	37,648.64
Filipino mess.....	7	196.79	.926	2,361.50
Employees' mess.....	29.7	2,375.10	2.63	28,501.17
Totals.....				583,825.62

TABLE L.—Comparative table showing expenses for subsistence consumed by the Cullion Leper Colony during the last five consecutive years—Continued

Kind of mess	1921			
	Average cost number of persons	Average cost monthly	Average cost per person per day	Amount
Lepers' mess.....	4,921.3	P35,263.16	P0.2423	P435,157.94
Laborers' mess.....	153.25	2,319.47	.5025	27,833.69
Filipino mess.....	5.11	141.61	.893	1,699.29
Employees' mess.....	35.08	2,822.79	2.680	33,873.49
Totals.....				498,564.41

Kind of mess	1922			
	Average number of persons	Average cost monthly	Average cost per person per day	Amount
Lepers' mess.....	5,102.5	P39,637.74	P0.2554	P475,652.93
Laborers' mess.....	303.5	3,317.26	.359	39,807.17
Filipino mess.....	17.15	377.99	.725	4,535.88
Employees' mess.....	59	4,108.65	2.29	49,303.89
Totals.....				569,299.87

### Summary

Year	Lepers' mess	Laborers' mess	Filipino mess	Employees' mess
1918.....	P372,025.81	P19,718.60	P2,455.01	P12,653.65
1919.....	429,806.93	30,127.34	4,101.28	15,675.99
1920.....	515,314.31	37,648.64	2,361.50	28,501.17
1921.....	435,157.94	27,833.69	1,699.29	33,873.49
1922.....	475,652.93	39,807.17	4,535.88	49,303.89

Comparative table showing prices of food articles of first necessity, during the last five consecutive years

Article	1918	1919	1920	1921	1922
Beans, navy..... kilo..	P0.60	P0.43	P0.36	P0.30	P0.37
Chocolate, La Marina..... box..	13.87	15.30	24.40	20.40	13.24
Coffee, green..... kilo..	.76	1.11	.96	.72	.68
Flour, No. 1..... sack..	5.79	6.02	8.93	4.85	4.44
Lard, compound..... 45-pound..	21.42	26.52	34.17	17.14	15.81
Milk, condensed..... can..	.42	.51	.51	.50	.26
Mongo, dry..... kilo..	.13	.21	.24	.14	.19
Onion, No. 1..... crate..	8.16	6.89	10.26	6.12	7.04
Potato, No. 1..... do..	6.63	6.33	8.16	6.63	7.09
Rice, brown No. 2..... sack..		16.00	15.75	9.00	8.90
Rice, white, No. 1..... do..		18.50	16.58	9.27	9.12
Salmon, "Chum"..... can..	.31	.34	.34	.18	.20
Salt, native..... kilo..	.07	.03	.06	.03	.02
Sugar, refined..... sack..	16.12	28.56	46.92	18.87	13.26
Sugar, brown..... do..	9.74	21.93	41.73	9.63	7.29
Tea, "Ceylon" 1 lb..... package..	.84	1.04	1.84	.50	.54
Tomato, canned..... can..	.38	.36	.32	.30	.31

TABLE M.—Comparative table showing standard weekly ration furnished an ordinary leper during the last three consecutive years

Article	1920	1921	1922
Rice, unpolished.....ganta	1 $\frac{1}{2}$	1 $\frac{3}{8}$	1 $\frac{1}{2}$
Bread.....loaf	1	1	1
Beef, fresh.....grams	90	90	150
Fish, fresh (or equivalent).....do	720	<sup>b</sup> 1,509	1,500
Tomato.....can	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$
Chocolate.....package	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Lard, compound.....pound	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Onion.....kilo	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Garlic.....head	1	1	1
Sugar, brown.....chupa	$\frac{1}{2}$	$\frac{1}{2}$	1
Salt, native.....kilo	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Coffee, green.....grams	100	135	190
Milk, condensed <sup>a</sup> .....kilos		$\frac{1}{2}$	$\frac{1}{2}$
Camote.....number			1
Coconut.....number			
Mongo sprouts, kamote leaves, kangkong, cassava, raddish, banana, cowpeas, pineapple, corn, squash, etc. given at least twice a week.....grams		500	500

<sup>a</sup> While the item of milk is not given in this table because not ordinarily issued to all of the inmates, it is however given to those who, on account of their physical condition, age, etc., subsist on a special kind of diet. The average amount given each person (about 500) in 1922 was  $\frac{1}{2}$  of a can of condensed milk per week.

<sup>b</sup> The increases in quantity were made toward the latter part of 1921.

TABLE N.—Vaccination and inspection during the year 1922

Vaccination				Inspection of vaccination		
Months	Male	Female	Total	Number of positives	Number of negatives	Total
January.....	88	61	149	46	103	149
February.....	173	75	248	147	101	248
March.....	70	33	103	55	38	93
April.....	95	41	137	69	68	137
May.....	95	95	190	52	138	190
June.....	31	20	51	29	22	51
July.....	93	34	127	58	69	127
August.....						
September.....						
October.....						
November.....	100	62	162	113	49	162
December.....	70	68	138	55	83	138
Total.....	816	489	1,305	624	671	1,295

NOTE.—Out of 46 revaccination on February and March, 1922, 20 came out positive and 26 negative.

## BAGUIO HOSPITAL

## PERSONNEL

## CLASSIFIED SERVICE

1 Chief.  
 1 Resident physician.  
 1 Superintendent and cashier.  
 1 Pharmacist.  
 1 Chief nurse.  
 8 Nurses.  
 1 Clerk.

## UNCLASSIFIED SERVICE

1 Cook.  
 1 Assistant cook.  
 1 Gardener.  
 11 Servants.

The medical and surgical report was consolidated from the monthly reports submitted by this office from January to December, 1922.

## ADMISSION OF PATIENTS

Remaining in hospital, January 1, 1922.....	44
Admitted during the year.....	879

Total treated .....	923
Died, discharged, and escaped during the year.....	900

Remaining in hospital January 1, 1923.....	23
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The total of 879 admitted during the year represents a decrease of 19, or 2.12 per cent, less than the number of admissions in 1921.

There were 60 births and 45 deaths in hospital during the year.

The following tables show the classes, nationalities, sexes of patients admitted to the hospital, and the result of treatment of patients discharged from the hospital during the year:

*Admitted patients*

Class of patients	Medical	Surgical	Obstetric	Pediatric	Eye, ear, nose, and throat	Total
Private pay.....	91	27	18	17	.....	153
Government pay.....	50	3	22	22	.....	97
Government free.....	59	9	14	24	1	107
Charity.....	355	56	21	90	.....	522
Total.....	555	95	75	153	1	879

Nationalities of patients	Filipino, Chris- tian	Filipino, non- Chris- tian	Ameri- can	Euro- pean	Asiatic	Others	Total
Private pay.....	70	22	25	10	26	.....	153
Government pay.....	78	1	16	2	.....	.....	97
Government free.....	101	6	.....	.....	.....	.....	107
Charity.....	338	176	5	2	1	.....	522
Total.....	587	205	46	14	27	.....	879

Sexes of patients	Filipino, Chris- tian	Filipino, non- Chris- tian	Ameri- can	Euro- pean	Asiatic	Others	Total
Male.....	271	150	21	7	16	.....	465
Female.....	316	55	25	7	11	.....	414
Total.....	587	205	46	14	27	.....	879

*Termination and classification of the cases*

Result of treatment	Medical	Surgical	Obstetric	Pediatric	Eye, ear, nose, and throat	Total
Recovered.....	475	50	91	93	1	710
Improved.....	86	17	1	14	.....	118
Unimproved.....	24	1	.....	2	.....	27
Deaths.....	27	3	2	13	.....	45
Total.....	612	71	94	122	1	900

The following table shows an increase or decrease of medical, surgical, obstetrical, pediatric, and eye, ear, nose, and throat admitted to the Baguio Hospital during the fiscal year 1922:

Class of patients	1921	1922	Increase (+) or decrease (—)
Medical.....	598	555	—43
Surgical.....	136	95	—41
Obstetric.....	80	75	—5
Pediatric.....	82	153	+71
Eye, ear, nose, and throat.....	2	1	—1
Total.....	898	879	—19

### MORBIDITY AND MORTALITY

The following is a comparative statement of morbidity and mortality of the most important diseases admitted to the hospital during the last five years:

Diseases	1918		1919		1920		1921		1922	
	C	D	C	D	C	D	C	D	C	D
Typhoid fever.....	1	...	7	1	22	3	51	6	54	7
Malaria.....	...	...	31	...	21	...	33	3	17	1
Measles.....	34	...	4	...	10	...	20	1	7	...
Influenza.....	146	1	31	...	80	...	78	1	84	1
Dysentery.....	26	1	31	2	52	6	19	...	13	...
Tuberculosis.....	100	2	39	3	40	5	37	2	38	4
Acute bronchitis.....	98	...	47	...	27	...	27	...	70	...
Broncho-pneumonia.....	12	5	4	...	22	6	21	2	37	4
Pneumonia.....	46	20	3	1	6	1	25	6	22	3
Chickenpox.....	...	...	8	...	...	...	17	...	22	...

### Cases and deaths of typhoid fever admitted to the Baguio Hospital during the fiscal year 1922

Months of 1922	Baguio proper		Trinidad		Camp John Hay		Tublay		Antamok		Itogon		Tuding		Near-by provinces		Total	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
January.....	4	1	1	...	3	...	...	...	...	...	...	...	1	...	...	...	9	1
February.....	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1
March.....	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	4	...
April.....	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
May.....	7	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	9	...
June.....	1	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	3	1
July.....	4	1	1	...	...	...	...	...	...	...	...	...	...	1	...	...	6	1
August.....	5	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	7	...
September.....	2	1	2	...	1	...	...	...	...	...	...	...	...	...	...	...	5	1
October.....	2	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	4	2
November.....	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
December.....	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Total.....	33	6	6	...	7	...	...	...	4	1	...	...	1	...	3	...	54	7

*Typhoid fever.*—This is still the most important disease that we had to contend with. This year we had 54 cases admitted to the hospital with 7 deaths while last year we had 51 cases with 6 deaths. (See comparative tables on morbidity and mortality.)

*Malaria.*—The cases of malaria admitted to the hospital were from the neighboring provinces, mostly tertian and chronic cases.

*Influenza.*—This year this disease presented itself in a mild form, the patient complaining of severe headache and fever which lasted 3 to 4 days accompanied with slight cough. We lost only 1 case of this disease, who died within 48 hours after admission due to pneumonia as a complication. This was a private case of Dr. C. O. Hansen of Antamok.

*Dysentery.*—There were 13 cases of dysentery, 11 of which were amoebic and 2 bacillary, all of whom had complete recovery except a child, whose father insisted to take the child from the hospital against our advice.

*Pulmonary tuberculosis.*—We had 38 cases of pulmonary tuberculosis with 4 deaths. I wish to say that these cases that died were admitted to the hospital in very advanced stages of the disease.

*Acute bronchitis.*—We had 70 cases of acute bronchitis with no death, 42 of which were under 2 years of age.

*Broncho-pneumonia.*—We had 37 cases of broncho-pneumonia with 4 deaths. All of these cases were children under 6 years old except one whose age was 37.

*Pneumonia.*—We had 22 cases of pneumonia with 3 deaths.

#### OUT-PATIENT DEPARTMENT

Six hundred eighty-seven patients attended the hospital clinic, 3,419 patient's visits to the hospital clinic, 765 surgical dressings performed, 17 medico-legal cases and emergency cases attended, and 6,830 prescriptions filled in the hospital pharmacy during the year.

The following is a comparative statement of the out-patients' department during the last five years:

	1918	1919	1920	1921	1922
Patients attended.....	5,003	1,925	1,027	1,277	687
Patients' visits.....	8,019	3,033	3,595	3,790	3,419
Surgical dressings.....	2,915	1,235	1,218	1,087	765
Medico-legal cases.....			8	9	17
Emergency cases.....			41	29	34
Prescriptions filled.....	5,124	2,816	5,783	5,704	6,830



## LABORATORY EXAMINATIONS

There were 380 examinations performed during the year. Of these here were 58 blood, 189 urine, 111 feces, 5 pus, and 17 sputum.

The following is a comparative statement of laboratory examinations during the last four years:

	1919	1920	1921	1922
Blood.....	58	46	41	58
Urine.....	226	141	98	189
Feces.....	245	242	83	111
Pus.....	4	6	15	5
Sputum.....	59	30	19	17
Total.....	592	465	256	380

## INCOME DURING THE YEAR

Accounts receivable, January 1, 1922 .....	₱741.44
Income during the year:	
Sales income .....	₱0.40
Service income .....	10,249.65
Total .....	10,991.49
Collection during the year.....	9,915.79
Accounts receivable, January 1, 1923 .....	1,075.70

## SUBSISTENCE

The following is a statement of expenses for subsistence supplies incurred during the year:

On hand January 1, 1922.....	₱1,363.83
Purchased during the year.....	15,853.31
Total .....	17,217.14
Consumed during the year.....	15,961.36
Remaining on hand January 1, 1923.....	1,255.78
Average cost of subsistence per day.....	43.67
Average number of persons subsisted per day.....	63.96
Average cost of subsistence per person per day....	.68

The following table shows the average cost of subsistence per person per day during the last four years:

Year	Average
1919 .....	₱1.07
1920 .....	1.09
1921 .....	.98
1922 .....	.68

This year we tried our best to reduce the expenses of the hospital following the general policy of economy of the Government. We had great difficulty in making our appropriation to meet the actual expenses of the hospital. This is especially true during the first six months of the year due to the fact that we have an increase of persons subsisted per day in the hospital than in the previous year, as will be seen in the following table:

Months	1921	1922	Increase (+) or decrease (—)
January.....	44,777	75,581	+30,804
February.....	44,559	65,50	+21,941
March.....	51,268	68,29	+17,022
April.....	62,644	78,166	+15,522
May.....	62,74	71,06	+8,32
June.....	60,42	73,11	+12,69
July.....	54,677	59,816	+5,139
August.....	47,81	51,892	+4,082
September.....	50,366	56,444	+6,078
October.....	61,086	58,064	—3,022
November.....	58,311	58,589	—722
December.....	57,913	56,01	—1,903

We also consumed ₱15,961.36 worth of subsistence supplies this year while last year we consumed ₱19,488.05, giving us an economy of ₱3,526.69.

We are glad to state that of the recommendation we made last year, the establishment of the School of Nursing for the Igorot girls, was favorably considered by the Director of Health and all indications seem that we will have it next year (1923).

Dr. Alfonso C. Concepcion took a special course in bacteriology in the Bureau of Science and now the Baguio Hospital is having a well-equipped laboratory under his charge.

#### *Baguio Hospital*

[Fiscal Year 1923]

Diseases.	Remaining at last report	Admitted	Died	Discharged	Escaped	Remaining
1. Typhoid fever.....	15	54	7	61	.....	1
4. Malaria.....	2	17	1	18	.....	.....
6. Measles.....	.....	7	.....	7	.....	.....
8. Whooping cough.....	.....	4	.....	4	.....	.....
9. Diphtheria and croup.....	.....	1	1	.....	.....	.....
10. Influenza.....	1	84	1	83	.....	1

## Baguio Hospital—Continued

Diseases.	Remaining at last report	Admitted	Died	Discharged	Escaped	Remaining
13. Cholera nostras . . . . .		1		1		
14. Dysentery . . . . .		13		13		
18. Erysipelas . . . . .	1			1		
19. Other epidemic diseases . . . . .	1	27		24	4	
20. Purulent infection and septicæmia . . . . .		2		2		
24. Tetanus . . . . .		1	1			
27. Beriberi . . . . .		11	4	7		
28. Tuberculosis of the lungs . . . . .	9	38	4	29	2	12
30. Tuberculous meningitis . . . . .		2	2			
37. Syphilis . . . . .		2		2		
Hereditary . . . . .		1		1		
38b. Gonococcus infection . . . . .		3		3		
40. Cancer and other malignant tumors of the stomach, liver . . . . .		2	1	1		
42. Cancer and other malignant tumors of the female genital organs . . . . .		1		1		
45. Cancer and other malignant tumors of other organs or of organs not specified . . . . .		1	1			
46. Other tumors (tumors of the female genital organs excepted) . . . . .		2		2		
47. Acute articular rheumatism . . . . .		2		2		
48. Chronic rheumatism and gout . . . . .		1		1		
54. Anæmia, chlorosis . . . . .		6		6		
55. Other general diseases . . . . .		2		2		
56. Alcoholism (acute or chronic) . . . . .		1		1		
59. Other chronic poisonings . . . . .		2		2		
63. Other diseases of the spinal cord . . . . .		1		1		
64. Cerebral hæmorrhage, apoplexy . . . . .		3	2		1	
66. Paralysis without specified cause . . . . .	1			1		
68. Other forms of mental alienation . . . . .		4		3	1	
69. Epilepsy . . . . .		6		6		
70. Convulsions (nonpuerperal) . . . . .	1	1	1			
73. Neuralgia and neuritis . . . . .	1	2		2		1
74. Other diseases of the nervous system . . . . .	1			1		
75a. Follicular conjunctivitis . . . . .		3		2		1
76. Diseases of the ears . . . . .	1	4		4		1
79. Organic diseases of the heart . . . . .		5		5		
80. Angina pectoris . . . . .	1			1		
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.) . . . . .		1	1			
84. Diseases of the lymphatic system (lymphangitis, etc.) . . . . .		1		1		
85. Hæmorrhage; other diseases of the circulatory system . . . . .		5		5		
86. Diseases of the nasal fossæ . . . . .		11		11		
88. Diseases of the thyroid body . . . . .		2				
89. Acute bronchitis . . . . .	5	70		75		
90. Chronic bronchitis . . . . .		2		2		
91. Broncho-pneumonia . . . . .	1	37	4	34		
92. Pneumonia . . . . .		22	3	19		
93. Pleurisy . . . . .		4		4		
96. Asthma . . . . .	1	1		2		
99b. Other diseases of the mouth and annexa . . . . .	1	1			1	
100. Diseases of the pharynx . . . . .		11		10	1	
102. Ulcer of the stomach . . . . .	1	1	1	1		
103. Other diseases of the stomach (cancer excepted) . . . . .		37		37		
104. Diarrhœa and enteritis (under 2 years) . . . . .		10	2	8		
105. Diarrhœa and enteritis (2 years and over) . . . . .		15	1	14		
106. Ankylostomiasis . . . . .		2		2		
107. Intestinal parasites . . . . .		13		13		
108. Appendicitis and typhlitis . . . . .		13		13		
109. Hernia, intestinal obstruction . . . . .		3		3		
110a. Diseases of the anus and fecal fistula . . . . .		1		1		
110b. Other diseases of the intestines . . . . .		49	1	45	1	2
113. Cirrhosis of the liver . . . . .		1		1		
119. Acute nephritis . . . . .		1		1		
120. Bright's disease . . . . .		4		3	1	
122. Other diseases of the kidneys and annexa . . . . .		2		2		
123. Calculi of the urinary passages . . . . .		2		2		
124. Diseases of the bladder . . . . .		2		2		
127. Nonvenereal diseases of the male genital organs . . . . .		2		2		
128. Uterine hæmorrhage (nonpuerperal) . . . . .		1		1		
130a. Metritis . . . . .		3		3		
130b. Other diseases of the uterus . . . . .		6		6		
131. Cysts and other tumors of the ovary . . . . .		1		1		
133. Nonpuerperal diseases of the breast (cancer excepted) . . . . .		3		3		

*Baguio Hospital—Continued*

Diseases.	Remaining at last report	Admitted	Died	Discharged	Escaped	Remaining
134a. Normallabor.....		60		5		2
134b. Accidents of pregnancy.....	2	34	1	34	8	1
135. Puerperal hæmorrhage.....		2		2		
137. Puerperal septicæmia.....		1		1		
141. Puerperal diseases of the breast.....		1		1		
143. Furuncle.....		1		1		
144. Acute abscess.....		29	1	38		
145c. Other diseases of the skin and annexa.....		7		7		
146. Diseases of the bones (tuberculosis excepted).....		3		3		
147. Diseases of the joints (tuberculosis and rheumatism excepted).....		2		2		
150. Congenital malformations (stillbirths not included).....		1		1		
151. Congenital debility, icterus, and sclerema.....		2	1	1		
164. Poisoning by food.....			1	1		
165b. Other acute poisonings.....		2		2		
167. Burns (conflagration excepted).....		5		5		
185b. Sprains.....		1		1		
185c. Fractures (cause not specified).....		11	2	8		
186. Other external violence.....	1	41		41	1	
189a. Cause of death not specified or ill defined.....		1		1		
189b. No disease, feigned disease.....		16		16		
Total.....	44	879	45	842	13	32

**BONTOC HOSPITAL****PERSONNEL**

- 1 Chief of hospital and District Health Officer.
- 1 Resident physician.
- 1 Superintendent, cashier, and property clerk.
- 1 Pharmacist.
- 1 Chief nurse.
- 6 Nurses.
- 1 Cook.
- 1 Assistant cook.
- 1 Gardener.
- 1 Seamstress.
- 4 Laundresses.
- 8 Hospital boys.
- 1 Caretaker of poultry and pigs.

There were few transfers of personnel during the year as may be thus shown:

Dr. Francisco Gomez, formerly resident physician of the Bontoc Hospital, was transferred to the Subprovince of Ifugao as sub-district health officer thereat, relieving Dr. Rafael G. Jagunap, transferred to Bontoc Hospital on September 9, 1922, as resident physician.

Nurse Potenciana O. Cerezo was transferred to Kiangnan Hospital, Subprovince of Ifugao, relieving Nurse Eufracia A. Bayani, transferred to the Bontoc Hospital.

Nurses Olimpia Borlongan and Ana Teodorico arrived in the Bontoc Hospital on August 31, 1922, relieving nurses Rosario Maravilla and Catalina Valdez, transferred to Manila.

The position of pharmacist was only filled on April 30, 1922, but the incumbent resigned on December 5, 1922, perhaps due to the small salary he was receiving. There were 9,850 prescriptions filled during the year as compared with 6,578 prescriptions in 1921. The position of pharmacist should be filled as soon as possible in order that delicate and effective preparations may be prescribed. The safe-keeping of prohibited drugs can be better administered.

One new position of nurse was created and the lack of nurses in the previous years in the Bontoc Hospital was not felt this year.

#### BUILDINGS, REPAIRS, AND IMPROVEMENTS

The contagious pavilion, a one-story building, will soon be completed and the upper story of the service building will be wholly converted into living quarters for employees of the hospital other than female and unmarried nurses. The contagious pavilion has a capacity of 16 beds, but it can be increased if the exigencies of the service demand. Upon its completion all contagious cases shall be entirely separated from other patients in the hospital.

The pharmacy which was located in the main building in a very small room was transferred to the first story of the service building (now employees' quarters) where a wider space assures better service to the public. The present pharmacy can now hold the whole stock of medicines of the hospital. The consultation office was likewise transferred to a room very close to the pharmacy. The rooms vacated in the main building were converted into offices of the District Health Officer and Chief of the Hospital together with the whole office force. All business matters can now be easily transacted as no person having account to settle in the hospital can leave without first going to the office which is located just at the entrance to the hospital building proper.

The delivery room of the hospital was also transferred to a better place.

The installation of electric lights in the hospital, the operation of which begun on July 8, 1922, improved the efficiency of the hospital. The cost of illumination by electricity, considering the number of lights used daily, is very much cheaper than by using kerosene or petroleum oil. The number of lights installed is 74 and distributed all over the hospital and the quarter for employees.

The Bontoc Hospital is now equipped with an annunciator connected to all the private rooms and wards of the hospital

and the use of bells in calling for the duty nurses or attendants by private patients and other bed patients have been discontinued. The annunciator was installed at no cost, because the employees managed the work. The installation was nicely and perfectly done. By the use of annunciator, the call can be answered at once and the trouble to the patients and to the attendants caused by bell-ringing is avoided.

There were minor improvements or rather alterations made to the hospital buildings during the year.

Changing of rotten floors and window frames damaged by white ants.  
Fitting windows and doors with security bolts.

Putting the pharmacy in good shape, and increasing its stands to hold the entire stock of medicines for the hospital.

Providing for a room in the hospital for office of the nurses.

Replacing window glasses and fitting bars along the hospital veranda.  
Two flag poles have been erected in front of the hospital.

There are still some painting and other improvements to be done but due to lack of personnel in the office of the District Engineer, the same was not carried out through an allotment for the purpose was made by the Provincial Board from the superavit of 1921 health fund.

The hospital boys were busy for some time in making garden plots for different varieties of flowering plants. The plots added much to the beauty of the hospital grounds serving at the same time a place for relaxation of mind to the patients.

Much product was raised in the vegetable garden of the hospital during the first seven months of the year, but due to lack of proper fencing which resulted in the failure of the third crop, no vegetable plants were planted during the last two months. "Rono" was used for fencing which is not strong enough to avoid or prevent animals from entering the vegetable gardens. There are still, however, papaya trees from where nearly, every-day vegetable diet of the patients and employees are taken. It is expected that the hospital vegetable garden will produce most of its vegetable consumption if the plan to fence the hospital reservations with barbed wire is carried out. Oftentimes the market supply of vegetable is not enough for the community.

#### HOSPITAL ATTENDANCE

There is less number of patients admitted during the year, because other patients have been treated in the out-door service of the Bontoc Hospital. Preference was given to weak patients to stay in the hospital. However, due to the absence of epidemic in the Subprovince of Bontoc, and for the reason above-men-

tioned, the total number of admissions is less than the previous years. The largest number of admissions at one time the hospital during the year was on the night of November 6, 1922, about 10 p. m. inside the peddler's camp situated near the public market of the town of Bontoc, when 21 Igorots were seriously wounded by unknown persons. One of them died instantaneously and the rest were brought immediately to the hospital for treatment. All the employees of the hospital without exception were called to service to which everybody responded.

*Bontoc Hospital cases*

Diseases	Remaining at last report	Admitted	Died	Transferred	Discharged	Escaped	Remaining
1. Typhoid fever	1	5	1		4		1
4. Malaria	2	66	1		65		2
6. Measles		21			19	2	
10. Influenza		21			21		
14. Dysentery	1	21			21		1
17. Leprosy		4		4			
19. Other epidemic diseases		43			30	4	9
20. Purulent infection and septicæmia	1	23			23		1
24. Tetanus		2	1		1		
27. Beriberi		1			1		
28. Tuberculosis of the lungs		8			7		1
30. Tuberculous meningitis		3	2		1		
34. Tuberculosis of other organs		4			4		
37. Syphilis, primary		1			1		
Syphilis, secondary		3			2		1
38a. Soft cancer		1			1		
38b. Gonococcus infection		8			5	3	
44. Cancer and other malignant tumors of the skin		1			1		
Yaws		5			5		
47. Acute articular rheumatism		3			3		
54. Anemia, chlorosis		6			6		
56. Alcoholism (acute or chronic)	1	1			2		
61. Simple meningitis		1	1				
67. General paralysis of the insane		1		1			
70. Convulsions (nonpuerperal)		1			1		
71. Convulsions of infants		1			1		
73. Neuralgia and neuritis		1			1		
74. Other diseases of the nervous system		1			1		
75a. Follicular conjunctivitis		12			12		
75c. Other diseases of the eyes and their annexa		2			2		
85. Hæmorrhage; other diseases of the circulatory system		1			1		
86. Diseases of the nasal fossæ		1			1		
89. Acute bronchitis		28			26		22
90. Chronic bronchitis		2			2		
91. Broncho-pneumonia		2			2		
92. Pneumonia		1			1		
93. Pleurisy		5			5		
94. Pulmonary congestion		3			3		
96. Asthma		2			2		
99b. Other diseases of the mouth and annexa		2			2		
102. Ulcer of the stomach		4			4		
103. Other diseases of the stomach (cancer excepted)	1	13			14		
105. Diarrhœa and enteritis under 2 years		9	3		6		
105a. Due to alcoholism		1			1		
107. Intestinal parasites		14			12		2
108. Appendicitis and typhlitis		1			1		
109. Hernia, intestinal obstruction		1			1		
110a. Diseases of the anus and fæcal fistula		1			1		
110b. Other diseases of the intestines		7			7		
113. Cirrhosis of the liver		3	2		1		
118. Other diseases of the digestive system		4			3		1
119. Acute nephritis		6			6		
120. Bright's disease		2			2		
130a. Metritis		7			7		

*Bontoc Hospital cases—Continued*

Diseases	Remaining at last report	Admitted	Died	Transferred	Discharged	Escaped	Remaining
131. Cysts and other tumors of the ovary .....		2			2		
132. Salpingitis and other diseases of the female genital organs .....		1			1		
134a. Normal labor .....		39			38		1
134b. Accidents of pregnancy .....		4			4		
138. Puerperal albuminuria and convulsions .....		1			1		
144. Acute abscess .....		2			2		
145b. Scabies .....		41			33	1	
145c. Other diseases of the skin and annexa .....	14	76			87		3
146. Diseases of the bones .....		1			1		
147. Diseases of the joints .....		3			3		
149. Other diseases of the organs of locomotion .....	1				1		
160. Suicide by cutting or piercing instruments .....		1			1		
164. Poisoning by food .....		1			1		
167. Burns (conflagration excepted) .....		4	1		3		
168. Absorption of deleterious gases .....		1			1		
171. Traumatism by cutting or piercing instruments .....		32			30		2
172. Traumatism by fall .....		2			2		
175. Traumatism by other crushing .....		1			1		
185a. Dislocations .....		1			1		
185b. Sprains .....		1			1		
185c. Fractures .....		2			2		
186. Other external violence .....		4			4		
189a. Cause of death not specified .....		2			2		
189b. Feigned disease .....		2			2		
Total .....	23	615	14	5	574	10	35

*Inside patient department*

	1917	1918	1919	1920	1921	1922
Number of patients admitted .....	523	696	434	521	661	615
Number of male patients admitted .....	375	484	319	344	408	388
Number of female patients admitted .....	148	212	115	177	253	227
Number of Christian patients admitted .....	119	143	102	117	161	173
Number of non-Christian patients admitted .....	404	553	332	404	500	442
Free ward patients .....	492	673	406	440	556	504
Pay patients .....	31	23	28	81	105	111
Deliveries .....	18	13	23	28	27	39
Number of deaths .....	22	21	21	17	15	14

## MOVEMENT OF PATIENTS

Patients remaining from last year .....	23
Patients admitted during the year .....	615
Patients discharged during the year .....	574
Patients died during the year .....	14
Patients released or transferred .....	5
Patients escaped .....	10
Patients remaining December 31, 1922 .....	35

## PATIENTS ADMITTED, BY NATIONALITIES

Filipino-Igorots .....	442
Filipino-Christians .....	168
Americans .....	1
Japanese .....	3
Others .....	1



## PATIENTS RELEASED

Suspected lepers .....	4
Insane transferred to Bontoc Prison dispensary .....	1

*Outside-patient department*

Year	Cases	Treatments
1918.....	2,068	5,395
1919.....	2,552	7,620
1920.....	2,609	9,421
1921.....	3,067	8,143
1922.....	3,504	7,240

The increase in the number of outside cases was due primarily to the willingness of the natives to submit themselves to treatment:

*Prescriptions*

Year	Prescriptions filled	Average per month	Average per day
1917.....	5,626	468	16
1918.....	6,002	500	17
1919.....	5,664	472	16
1920.....	5,976	498	17
1921.....	6,578	548	18
1922.....	9,850	821	27

Due to the advancing civilization of the natives, the number of visitors to the hospital dispensary for treatment were given prescriptions of about 50 per cent more than the total number filled during 1921. There was no epidemic during the year in the Subprovince of Bontoc, yet the total number of prescriptions filled as more than the previous years, when influenza epidemic was registered twice in 1918. The giving of lectures to the public on sanitation is considered effective.

*Comparative death rate*

	1917	1918	1919	1920	1921	1922
Admissions.....	523	696	434	521	661	615
Deaths.....	22	21	21	17	15	14
Death rate per thousand admissions .....	42.06	30.17	48.38	32.63	22.69	22.76

The average death rate of patients admitted to the hospital in 1922 was more than in 1921. The ancient customs of some of the natives is believed responsible for the increase, because they do not submit themselves immediately for treatment in the hospital till they have lost faith in their belief on "caños," and the patients already in a very serious condition.

## FINANCE

The status of the allotment at the close of business December 31, 1922, cannot yet be given; the books of accounts of the provincial treasurer have not as yet been closed. The coöperation of the provincial officials as well as the smooth running of the hospital give assurances that no overdrafts have been incurred. The cost of commodities in Bontoc are very much higher than in the lowlands, and even Manila, where first-hand garden products and other supplies are obtainable at any time. Comparative costs of supplies most commonly used and which are obtainable locally in Bontoc are as follows:

Descriptions	Local Bontoc markets	Manila markets
Rice, native, per cavan.....	₱12.00- ₱13.00	₱8.00-8.40
Sugar, refined, per sack.....	23.50- 25.00	8.00-8.25
Condensed milk, per can.....	0.55- 0.60	0.30-0.40
Onions, per kilo.....	1.00- 1.20	0.45-0.60
Sugar, brown, per kilo.....	0.30- 0.35	0.25-0.28
Eggs, native, each.....	0.06- 0.12	0.05-0.06
Potatoes, per kilo.....	0.30- 0.40	0.16-0.20

The local market prices of all commodities preserved in cane are practically very much higher than in Manila; the reason is due to the high cost of transportation. Fresh fish cost very much except river eel or wading fish. Our commissary supplies are purchased direct from the Bureau of Supply, Manila, except a few items which were purchased from local merchants when these were very badly needed. It would be more economical if the commissary supplies for the Bontoc Hospital could be purchased direct from the importers without the intervention of the Bureau of Supply or say the shipment to be made by our Manila property office. By this way the property officer of the Philippine Health Service, Manila, will select and only send new stocks of commodities; wastes and losses could then be avoided.

*Comparative report of collections*

Year	Number of pay patients	Amount collected
1918.....	23	₱1,625.99
1919.....	28	1,868.22
1920.....	81	2,306.68
1921.....	105	2,667.85
1922.....	111	2,928.29

*Comparative report of subsistence expended*

Year	Amount of subsistence expired	Average per capita
1918.....	P9,351.40	P0.50
1919.....	9,475.43	.44
1920.....	10,832.01	.53
1921.....	10,881.82	.474
1922.....	10,225.38	.467

Efforts were made to carry out the policy of the Government with regard to economy without impairing the service. There were more pay patients and more personnel during the year. The reducing of operating expenses is obviously an important problem now-a-days.

## RECOMMENDATIONS

The Bontoc Hospital should be provided with a library, a reading room for employees, and a separate one for patients.

The floor of the hospital charity wards should be of cement or tile. The wooden floor can not resist long on account of the destructive white ants. It is hoped that by replacing the present wooden floors with cement, no further repairing expenses will be incurred. For the standardization of floor, the use of linoleum tile, and various so-called composition of permanent flooring will give results to the Government.

There should be a separate *bodega* or warehouse to be annexed to the hospital for miscellaneous supplies of the Subprovince of Bontoc other than those for the Bontoc Hospital. All supplies intended for the different Subprovinces (except Apayao and Benguet whose supplies are shipped direct to them from Manila), are received, repacked, and stored in the Bontoc Hospital. The present system of ascertaining the operating expense of the Bontoc Hospital is not exactly accurate.

The Bontoc Hospital reservation should be fenced with barbed wire in order to prevent animals from destroying flowering and vegetable plants to be planted in the hospital gardens.

The employment of a carpenter is also considered imperative in order that such repairs as may be necessary to the equipments of the hospital can be immediately made. The manufacture of equipments for dispensaries in the Mountain Province shall also be undertaken. This carpenter will be sent also to any part of the province where his services may be necessary. Due to the isolated condition of the province as well as to the

high cost of living at this place, no able carpenters can be at once called. There are times when the office of the District Engineer is short of the services of carpenters.

The purchase of an auto-piano is considered essential toward improving the social relation of all the employees of the hospital, as well as to inducing the nurses to stay longer than they expected in the Bontoc Hospital. It will serve for relaxation of mind on the part of the employees after their duty hours, as well as to give some sort of a musical program to the patients once in a while. The absence of amusement throughout the province and the high cost of living and the isolated condition of these places are the principal causes that make an employee loathe to stay in Bontoc a long time.

All employees of the hospital with the exception of the office personnel should be in uniform, the expenses to be borne by the Government. This will not only raise the standard of the institution but it will be a distinct aid to better hospital service. Discipline can be more easily maintained and every employee can be readily distinguished from visitors and patients of the hospital. The pattern shall be, however, of the kind and workmanship that may be introduced by that office.

The services of the classified and unclassified employees of the hospital have been satisfactory. In order to continue the rapid progress of the Bontoc Hospital and in order to raise up the institution to the same level as the first-class hospitals, the increase in salaries to deserving employees should be considered. Comparing the salaries of present employees to those of 1915, when the natives were yet ignorant of the advantages of being hospitalized, it would show that the present salaries are much lower.

#### BAYOMBONG HOSPITAL

*The hospital building.*—The Bayombong Hospital is still housed in the rented building of former years. It accommodates only eight beds and the building itself being already an old one with its peculiar conditions is very far from satisfying the requisites of a modern hospital. The building is roofed with cogon, and has a flooring of wood in the greater part, but bamboo in the rest. The cogon roofing leaks at one or two places on a rainy day. It is, however, the best available building in the locality.

*Work accomplished during the year.*—During 1922 there were 84 free patients and 17 paid patients admitted to the hospital.

As far as record could show it was only this year when the Bayombong Hospital began to charge the admitted patients who can afford to pay. This fact is greatly accountable for the decrease in the number of admissions during the year compared with those of 1921 when 152 had been admitted, for it was believed that everybody was to be charged when they stay in the hospital for treatment. This belief, however, is rapidly disappearing.

In the out-patient clinics of the hospital there were 2,207 cases treated, 4,831 treatments done, and 154 minor operations performed during 1922.

In the laboratory there were twenty-three examinations made: 7 of feces, 8 of urine, 6 of blood, 2 of sputum.

There were ₱247.89 collected from the paid prescriptions and from patients during the year, which is ₱132.55 greater than that of 1921.

*Bayombong Hospital Cases*

[Fiscal Year, 1922]

Diseases.	Remaining at last report.	Admitted.	Died.	Discharged.	Escaped.	Remaining.
1. Typhoid fever.....		1		1		
4. Malaria.....		33		32	1	
6. Measles.....		1		1		
14. Dysentery.....		2	1	1		
19. Other epidemic diseases.....		1		1		
27. Beriberi.....		1		1		
28. Tuberculosis of the lungs.....		1		1		
34. Tuberculosis of other organs.....		1		1		
38a. Soft chancre.....		4		4		
38b. Gonococcus infection.....		4		4		
47. Acute articular rheumatism.....		1		1		
55. Other general diseases.....		3		3		
66. Paralysis without specified cause.....		1		1		
73. Neuralgia and neuritis.....		1		1		
84. Diseases of the lymphatic system (lymphangitis, etc.).....		1		1		
85. Hæmorrhage; other diseases of the circulatory system.....		1		1		
89. Acute bronchitis.....		5		5		
91. Broncho-pneumonia.....		6	1	5		
92. Pneumonia.....		3	1	2		
99a. Diseases of the teeth and gums.....		1		1		
99b. Other diseases of the mouth and annexa.....		1		1		
103. Other diseases of the stomach (cancer excepted).....		8	1	7		
107. Intestinal parasites.....		4		4		
108. Appendicitis and typhilitis.....		2		2		
115. Other diseases of the liver.....		1		1		
119. Acute nephritis.....		3		3		
122. Other diseases of the kidneys and annexa.....		1		1		
130a. Metritis.....	1			1		
130b. Other diseases of the uterus.....		1		1		
144. Acute abscess.....		4		4		
145c. Other diseases of the skin and annexa.....		1		1		
171. Traumatism by cutting or piercing instruments.....	1	2		3		
172. Traumatism by fall.....		1		1		
Total.....	2	101	4	98	1	

*Medical and surgical cases of the out-patient clinic for the year 1923*

Diseases	Cases	Treatments
4. Malaria.....	988	1,532
9. Diphtheria and croup.....	3	4
14. Dysentery.....	14	21
23. Rabies.....	8	29
27. Beriberi.....	1	2
28. Tuberculosis of the lungs.....	24	38
34. Tuberculosis of other organs.....	6	97
35b. Disseminated tuberculosis.....	9	25
38b. Gonococcus infection.....	26	70
46. Other tumors.....	2	16
47. Acute articular rheumatism.....	31	43
54. Anemia, chlorosis.....	62	219
55. Other general diseases.....	7	27
73. Neuralgia and neuritis.....	13	22
74. Other diseases of the nervous system.....	1	1
75. Diseases of the eyes and their annexa.....	38	93
76. Diseases of the ears.....	21	116
77. Pericarditis.....	1	2
79. Organic diseases of the heart.....	3	26
84. Diseases of the lymphatic system.....	5	110
86. Diseases of the nasal fossæ.....	2	7
87. Diseases of the larynx.....	1	2
89. Acute bronchitis.....	129	230
91. Broncho-pneumonia.....	2	64
92. Pneumonia.....	3	12
96. Asthma.....	3	2
98. Other diseases of the respiratory system.....	2	7
99. Diseases of the mouth and annexa.....	.75	102
100. Diseases of the pharynx.....	26	135
102. Ulcer of the stomach.....	2	8
103. Other diseases of the stomach.....	191	244
104. Diarrhea and enteritis under two years.....	2	2
105. Diarrhea and enteritis over two years.....	1	1
107. Intestinal parasites.....	24	31
119. Acute nephritis.....	2	2
122. Other diseases of the kidneys and annexa.....	1	1
130. Other diseases of the uterus.....	22	32
130a. Metritis.....	1	1
133. Nonpuerperal diseases of the breast.....	1	1
135. Puerperal hæmorrhage.....	2	5
144. Acute abscess.....	34	216
145. Other diseases of the skin and annexa.....	172	478
146. Diseases of the bones.....	23	48
165a. Venomous bites and stings.....	4	4
167. Burns.....	7	41
171. Traumatism by cutting or piercing instruments.....	130	451
175. Traumatism by other crushing.....	21	89
178. Excessive cold.....	47	50
185. Sprains.....	1	1
186. Other external violence.....	3	23
189a. Cause of death not classified or ill defined.....	10	48
Total.....	2,207	4,831

## MISCELLANEOUS

Total number of patients admitted to the hospital.....	101
Total number of patients treated in the out-patient clinic.....	2,207
Total number of prescriptions filled.....	4,831
Total number of prescriptions paid..... 228....	₹247.89
Total number of minor operations.....	154
Total number of major operations.....	0

## KIANGAN HOSPITAL

## PERSONNEL

- 1 Physician (sub-district health officer at the same time)
- 2 Nurses (two additional this year)
- 1 Hospital *practicante*
- 1 Cook
- 1 Washerwoman (one additional this year)
- 1 Gardener
- 2 Servants

## ADMINISTRATIVE DIVISION

- (1) General administration
- (2) Nursing department
- (3) Pharmacy
- (4) Unclassified labor service
- (5) Store room

(1) The general administration is performed by the sub-district health officer and his subordinates.

There being no resident physician nor pharmacist, the sub-district health officer acts for them. There is, however, a disadvantage in this, for, the sub-district health officer, when on inspection trip, leaves the patients under the nurse in charge who can hardly do all the work assigned as there is but one nurse in the whole hospital with an average of 25 to 30 patients to take care of.

(2) The nursing department is far from being satisfactory. As will be noted the admission of patients in the hospital is increasing every succeeding year, but unfortunately the number of personnel in the department is kept the same; thus the service rendered to the patients is very poor as compared with other well-organized hospitals as those of the department of Mindanao and Sulu. In those hospitals, they have at least three nurses to carry the 24-hour order of the physician. The poor service thus rendered does not reflect to the hospital alone but to the Philippine Health Service as a whole. It is true that the nurse has a *practicante* under her but she cannot be relied upon to do everything.

(3) The pharmacy is under direct charge of the sub-district health officer, he being the pharmacist. No one is allowed to dispense any kind of drug without definite instructions from the sub-district health officer. The pharmacy is very poorly

supplied with drugs. Its construction should be remedied, the sooner the better.

(4) The unclassified labor service consists of the cook, two helpers, one gardener, and one washerwoman. In the previous year, there was no gardener. The two helpers at present are not enough, considering the size of the hospital and the surroundings to be kept constantly clean. They also have to get fuel for the hospital kitchen, and during the dry season, water for the hospital, because the reservoir supplying the town cannot supply the hospital. Considering the larger number of patients in the hospital with a great number of soiled linens, one washerwoman alone can not do the work, besides, there are not enough cleanliness to last for longer than a week.

The unclassified labor service is under the direct supervision of the sub-district health officer.

#### SERVICES

- |                         |                          |
|-------------------------|--------------------------|
| 1. Hospital patients.   | 4. Plumbing service.     |
| 2. Dispensary patients. | 5. Illuminating service. |
| 3. Gardening service.   | 6. Water supply.         |

*Hospital patients.*—During this year, there were 586 admission as compared with 510 of last year.

Patients in hospital, January 1 .....	11
Patients admitted during the year .....	586
Patients discharged during the year .....	475
Patients absconded during the year.....	91
Patients transferred during the year .....	0
Patients died during the year .....	8
Major operation during the year .....	0
Minor operation .....	61
Laboratory examination .....	60

The most common prevailing disease among the natives, as the hospital records show, are malaria and intestinal parasites.

Aside from these two, however, there is a great number of yaws.

*Malaria.*—Of the total admission of 586 patients, 158 or 26.96 per cent were malaria cases. Malaria is frequent due to the fact that there is always stagnant water in the rice paddies and thick vegetation surrounding the barrios.

*Prophylaxis.*—It is entirely a failure among the natives, especially in the secluded and mountainous places, to pursue certain effective prevention to reduce the mortality especially of malaria. The people in these places cannot afford to furnish themselves mosquito nets which protect them from the diseases. The natives in general will always remain unhealthy, weak, and pale



due to lack of personal hygiene and the insanitary condition of their houses and surroundings.

*Intestinal parasites.*—Intestinal parasites are common among the natives as well as the few Christian residents. Many do not eat well-cooked food and vegetables which are handled with dirty hands.

*Prophylaxis.*—In spite of the lack of personnel of our service in the field, we have tried our utmost to impress in the minds of the people the importance of well-cooked foods and the proper disposal of excreta. But, of course, it will take some more years for the natives to realize the importance of our teachings regarding sanitation and hygiene.

*Yaws and syphilis.*—In the report of year 1921, syphilis appeared to be a common disease. This year none was observed except yaws. Many have come to the hospital for treatment. Aside from those coming to the hospital, there are many who hide themselves for fear of being hospitalized. The routine treatment followed is the intravenous injection of neosalvarsan and the external use of mercurial preparations.

*Prophylaxis.*—All efforts are being made to impress on the minds of the natives the transmission and the prevention of disease by giving instructions on how to live in a sanitary and hygienic way.

#### FREE DISPENSARY

Aside from the hospital, there is a dispensary. Consultation is held daily for one hour in the morning and one hour in the afternoon. Treatments and dressings are also extended to all. The dispensary is under the direct charge of the sub-district health officer and, in his absence, the nurse in charge. The dressing and treatments are performed by the nurse in charge with the assistance of a sanitary inspector and the *practicante*.

#### *Consultation and treatments*

	1921	1922
Consultation.....	471	571
Treatments.....	499	1,068

*Gardening service.*—The hospital is keeping a garden of its own for raising vegetables for the use of the hospital. Unfortunately not very much success is accomplished, and because the hospital reservation is unfenced, animals of all kinds enter the garden and destroy the plants.

*Plumbing system.*—The toilets are of the flush system. But two of the toilets could not be used since the beginning of the year for having been out of order.

All the excreta and other wastes are conveyed by means of a sewer system to a septic tank located behind the hospital.

*Illumination service.*—The illumination service is chiefly by petroleum. Should there be available funds, a hospital like this should have a Delco light to supply good light to the hospital; it will only cost ₱2,800 which, in the long run, will be cheaper than the use of petroleum.

*Sanitation service.*—Cleanliness of the hospital is kept by scrubbing the interior of the hospital twice a day.

*Water supply.*—The water supply comes from a reservoir, the water of which comes from a spring. From the reservoir a main pipe leads to the town to which the hospital pipe is connected.

*Bath room.*—There is one bath room for the male free patients; one for the female free patients and one for the private patients. They are all equipped with bath tubs.

*Clinical laboratory.*—The laboratory is fairly well equipped for bacteriological examination of blood smears and sputum and for examination of parasites in the stools, and microscopical and chemical examination of urine.

#### RECOMMENDATION

Since the beginning of a miniature hospital back in 1909 in the municipality of Kiangnan, the capital of the subprovince, the health service has developed it until the present time as shown by the records. The natives have confidence and faith in the health service, and fearing to lose this hard-won success, the following are earnestly recommended:

1. The increase in the number of nurses from one to three; two females and one male.
2. The increase in the appropriation for medical supply.
3. The proper construction and equipment of a pharmacy.
4. The additional number of assistant sanitary inspectors; one in Banaue and one in Mayoyao.

Taking into consideration the wide extent of area and the great number of malarial deaths in the municipality of Mayoyao, one sanitary inspector alone to carry all the work of sanitation is hardly adequate to combat the high mortality. For this reason this office strongly recommends that one additional assistant sanitary inspector be detailed there to cope with the prevailing conditions.

This office would also recommend an additional experienced and able sanitary inspector in the municipal district of Banaue for the reason that Banaue, aside from being too big for one sanitary inspector, is on the line of route of travelers especially of foreigners visiting this place. If only one is assigned there and he happens to be out, when foreigners may need an emergency aid, our service can not certainly do anything and we may be the subject of criticism on the part of the public.

#### CUYO HOSPITAL

The actual building of Cuyo Hospital is rented by the Government from Mr. Domingo Ellazar. It is not fit for hospital, but it is the best one that can be had in Cuyo.

There are eight beds in all, six beds for the patients and two beds for the attendants on duty at the hospital.

#### ADMISSIONS AND DISCHARGES

There were 118 patients admitted during the year, plus two remaining of last year, making a total of 120 patients. Of this total, 82 were discharged as recovered, 31 improved, one not improved, five died, and one absconded. The most common diseases treated in the hospital were malaria and intestinal parasites.

#### PERSONNEL

Dr. P. Araujo was the chief of the hospital during the period from January 1 to September 2, 1922. From September 3 to November 2, Miss D. Villanueva (nurse) was appointed to be in charge of the Cuyo Hospital and the health of the town during his absence; and from November 3 to December 31, 1922, Dr. Em. B. Espinosa was the chief of the hospital.

The personnel of the hospital at the end of the year was composed of one chief, two nurses, one clerk, one cook, and three helpers.

#### DISPENSARY

During the year, 2,367 patients were treated in the dispensary of the hospital. Of this total, 796 were given prescriptions, 1,397 were patients for dressings, and 174 for minor operations. The total number of dressings made was 4,569.

#### FINANCIAL REPORT

The subsistence consumed amounted to ₱1,411.27. Of this total, ₱1,298.96 was expended for market purchases; ₱9.30 for starch for laundry; at the end of the year ₱23.68 worth of sup-

plies and ₱8 as market allowance were left on hand. The total collection of the hospital during the year was ₱221.42.

#### MUNICIPAL SANITATION

The chief of the Cuyo Hospital acted as the local health officer for the municipality of Cuyo. During the year, cases of measles appeared in this municipality with no mortality. The common diseases of dysentery and intestinal parasites were less than in the past years.

The estimated population is 15,211. During the year there were 102 marriages, 590 births, and 191 deaths. The total number of deaths under one year was 47.

Subsistence supplies purchased and consumed during the year.

Balance on hand from the year 1921..... ₱59.12

#### *Purchased thru the Bureau of Supply*

6 cans cocoa.....	₱2.40
72 cans condensed milk.....	34.32
28 cans corned beef.....	17.36
24 cans guava jelly.....	4.56
60 cans salmon.....	17.06
12 cans sardines.....	3.84
24 packages corn starch.....	6.48
<b>Total .....</b>	<b>86.12</b>
Open market purchases.....	₱1,306.96
<b>Total .....</b>	<b>1,452.26</b>
Total subsistence supplies consumed during the year 1922.....	112.317
Total subsistence consumed as starch for laundry.....	9.30
Total subsistence remaining in the hospital on December 31, 1922 .....	23.687
Open market fresh subsistence consumed during the year 1922 .....	1,298.96
Open market fresh subsistence left on hand at the end of the year .....	8.00
<b>Total .....</b>	<b>1,452.264</b>
Average cost of subsistence per month.....	117.606
Average cost of subsistence per day.....	3.92
Average cost of subsistence per person per day for physician and nurses .....	.816
Average cost of subsistence per person per day for free patients and employees .....	.258
Average cost of subsistence per person per day for pay patients .....	.445
Average cost of subsistence per person per day for visitors.....	.90

## IWAHIG PENAL COLONY

## I. PERSONNEL

- 1 Resident physician, Philippine Health Service
- 1 Chief nurse, Philippine Health Service

Colonist assistants, Iwahig Penal Colony, to perform the duties of sanitary inspectors and ward nurses.

During the year 1922, there were 933 patients admitted and treated in the General Hospital, Tuberculosis Hospital, Women's Hospital, and Quarantine Hospital which represent a decrease of 1,127 patients from the year 1921. Most of these cases were malaria, pulmonary tuberculosis, and infected wounds.

## II. SURGICAL WORKS

Seven major operations were performed on hospital patients, 49 minor operations on both dispensary and hospital patients, and 5,040 dressings.

## III. PRESCRIPTIONS

The prescriptions filled during the year were as follows:

Hospital A.....	1,935
Hospital B.....	75
Women's Hospital.....	52
Officers, employees, and their families.....	63
Colonists and their families.....	761
Sanitary inspectors.....	982
Total .....	3,868

## IV. LABORATORY

The laboratory work as shown in the tabulation was as follows:

*Examination of blood*

Positive for malaria.....	660
Negative for malaria.....	767
Differential leucocyte count.....	7
White cells.....	3
Red cells.....	4
Total .....	1,441

*Examination of sputum*

Positive for tuberculosis.....	24
Negative for tuberculosis.....	233
Total .....	257

*Examination of urine*

Albumen .....	14
Casts .....	10
Blood .....	1
Pus .....	2
Calcium phosphate.....	2
Albuminous blood and pus.....	1
Negative .....	72
Gonorrhœa positive.....	1
Gonorrhœa negative.....	2
<b>Total .....</b>	<b>105</b>

*Examination of stool*

Amœba hystolitica.....	2
Hookworms .....	5
Strongyloides intestinales.....	1
Mucus .....	1
Tricomones intestinales.....	1
Trichuris .....	89
Ascaris lumbricoides.....	4
Blood pus.....	1
Negative .....	181
<b>Total .....</b>	<b>285</b>

Most of the positive cases in the examination of stool and sputum were "new comers" in the colony from Bilibid; and one case of gonorrhœa.

About two-thirds of positive for malaria are those who have just stayed in the colony from one to about six months.

## V. CONTAGIOUS DISEASES

Three cases of varicella and one of leprosy were reported. The cases of varicella were "new comers" from Bilibid and the case of leprosy arrived on or about the latter part of 1920. He was admitted to the quarantine (or Isolation) Hospital since August 24, 1921, and remained there until now.

## VI. VACCINATIONS

The vaccinations have been performed about the month of March on the whole population of the colony according to the records that were sent to the district health officer.

## VII. BIRTHS

During the year, 11 legitimate children were born; of these, six were males and five females.

## VIII. DEATHS

Forty-five deaths occurred during the year, 14 of pulmonary tuberculosis, 13 of malaria, and 18 of other causes.

## IX. MARRIAGES

There were 9 marriages celebrated during the year.

## X. MALARIA SURVEY

On or about October 27, 1922, the malaria survey was conducted in the colony. The physical examination on the colonists and officers together with the microscopical examination of their blood for malaria parasites have been made to determine the splenic and parasitic indices of the locality. This campaign was undertaken for about one month, headed by Dr. R. G. Padua, who was sent here by the the Director of Health. The records of the work, incorporated in his report, are on file at the Central Office, Philippine Health Service, Manila.

## IWAHIG GENERAL HOSPITAL

*Medical and surgical report for the year 1922*

Diseases	Remaining at last report	Admitted	Died	Transferred	Discharged	Escaped	Remaining
<i>I. General diseases</i>							
3. Relapsing fever . . . . .		1			1		
4. Malaria . . . . .	2	531	12		521		
4a. Malarial cachexia . . . . .		1	1				
14. Dysentery . . . . .		1	1				
17. Leprosy . . . . .	1						1
18. Erysipelas . . . . .		1			1		
19. Other epidemic diseases . . . . .		2			2		
20. Purulent infection and septicaemia . . . . .	1	32			33		
23. Tuberculosis of the lungs . . . . .	7	41	14		31		3
Gonorrhoea . . . . .		1			1		
46. Other tumors (tumors of the female genital organs excepted) . . . . .		1			1		
47. Acute articular rheumatism . . . . .		7			7		
55. Other general disease . . . . .		3			3		
<i>II. Diseases of the nervous system and of the organs of special sense</i>							
64. Cerebral hæmorrhage, apoplexy . . . . .		3	3				
68. Other forms of mental alienation . . . . .	2				2		
69. Epilepsy . . . . .		4			4		
75a. Follicular conjunctivitis . . . . .		1			1		
75c. Other diseases of the eyes and their annexa . . . . .		4			4		
76. Diseases of the ears . . . . .		2			2		
<i>III. Diseases of the circulatory system</i>							
79. Organic diseases of the heart . . . . .		1	1				
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.) . . . . .		2			2		
85. Hæmorrhage; other diseases of the circulatory system . . . . .		1			1		

## Medical and surgical report for the year 1922—Continued

Disease	Remaining at last report	Admitted	Died	Transferred	Discharged	Escaped	Remained
<i>IV. Diseases of the respiratory system</i>							
89. Acute bronchitis	1	2			1		
90. Chronic bronchitis		2			2		
93. Pleurisy		1	1				
95. Gangrene of the lung		1	1				
96. Asthma		7	1		6		
98. Other diseases of the respiratory system (tuberculosis excepted)		3			3		
99b. Other diseases of the mouth and annæa		3			3		
100. Diseases of the pharynx		1			1		
104. Diarrhoea and enteritis (under 2 years)		1			1		
105. Diarrhoea and enteritis (2 years and over)		3			3		
106. Ankylostomiasis		2			2		
108. Appendicitis and typhitis		2			1		1
109. Hernia, intestinal obstruction		2			2		
110a. Diseases of the anus and faecal fistula		1			1		
115. Other diseases of the liver		3	2		1		
116. Diseases of the spleen		1	1				
119. Acute nephritis		2	1				
120. Bright's disease	1	3	1		2		1
127. Nonvenereal diseases of the male genital organs		1			1		
135. Puerperal hæmorrhage		1			1		
140. Following childbirth (not otherwise defined)	1	2			3		
145. Herpes Zoster		1			1		
145b. Scabies		5			5		
145c. Other diseases of the skin and annæa		22			22		
146. Diseases of the bone (tuberculosis excepted)		5			5		
144. Acute abscess		8			8		
152. Other causes peculiar to early infancy		1			1		
154. Senility		2	1		1		
165a. Venomous bites and stings		2			2		
167. Burns (conflagration excepted)		2			2		
169. Accidental drowning		2	2				
171. Traumatism by cutting or piercing instruments	1	47			48		
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)		4			4		
183. Homicide by cutting or piercing instruments		4			3		1
184. Homicide by other means		1			1		
185a. Dislocations		3			3		
185b. Sprains		1			1		
186. Other external violence		15	2		13		
189a. Cause of death not specified or ill defined		7			7		
189b. No disease, feigned disease	1	119			120		
Total	18	933	45		899		7

## NAGA HOSPITAL, CAMARINES SUR

*Provincial hospital.*—The provincial hospital has continued its function throughout the year with its regular personnel: the resident physician, pharmacist, chief nurse, ward nurse, two *practicantes*—male and female—and one student nurse without salary but with subsistence and quarters.

Very few patients entered during the year due to the scarcity of money; nevertheless, in comparison with the year 1921, there were recorded 492 patients in the sick book this year, which is greater than the number of admissions during the previous year. In the clinic 252 consultations were registered and 1,006 treatments and 39 operations were made. There is



but one laboratory in the province, located in the provincial hospital, but it is not well equipped. However, several examinations were made during the year, as may be noted in the report prepared for the hospital. The surgical outfit is not complete.

*Dispensaries.*—A public dispensary under the charge of the president of the sanitary division is placed in every municipality of the province. Consultations and medical attendance are made at least twice a week in the nearer municipalities, and in farther municipalities the access to which quite difficult inspections are seldom made by the president of sanitary division, and said inspections are made at least two times a month. In this case patients have to stay in those municipalities two or three days.

During the year 1922, these public dispensaries were attended for consultations by 1,944 individuals with 2,506 treatments. Thirty-nine operations were performed and 589 patients attended to at their own residences. A total of 5,178 medical visits is recorded. (In the report, Naga shows 3 dispensaries, of which only one is mentioned in our report which is the dispensary of the first sanitary division.)

This number of medical attendance is small as compared with the number of inhabitants in the province. This was due to lack of coöperation on the part of the public to call at the dispensaries. For this reason, a campaign for conference urging them to go to the dispensaries was conducted by the personnel this year. However, this year we registered twice as much medical attendance as last year (2,097 in 1921 as against 5,178 in 1922).

#### ANNUAL REPORT OF HOSPITAL CASES

[From January 1 to December 31, 1922]

Patients admitted during the year.....	492
Patients discharged during the year.....	452
Patients died during the year.....	33
Patients remaining on December 31, 1922.....	7
By nationality:	
Filipinos .....	481
Americans .....	4
Spaniards .....	2
Chinese .....	4
Others .....	1
Total .....	492

## ANNUAL REPORT OF HOSPITAL CASES—Continued

Male patients.....	294
Female patients.....	198
Total .....	492

## By ages:

Below 10 years.....	113
10 to 20 years.....	89
20 to 40 years.....	188
40 to 50 years.....	62
50 to 70 years.....	40
Total .....	492

## CLINIC

Consultations .....	252
Treatments .....	1,006
Operations .....	39

## Laboratory

Blood examinations .....	38
Urine examination .....	90
Feces examinations .....	20
Pus examinations .....	58
Stool examinations .....	5
Sputum examinations .....	1
Other examinations .....	6
Total .....	218

## HOSPITAL CASES

Diseases	Patients		Died
	Admitted	Discharged	
1. Typhoid fever .....	13	10	3
2. Malaria .....	69	68	1
4a. Malaria cachexia .....	4	1	3
6. Measles .....	1	1	.....
8. Whooping cough .....	3	2	1
9. Diphtheria and croup .....	1	.....	1
10. Influenza .....	37	36	1
14. Dysentery .....	32	31	1
18. Erysipelas .....	4	3	1
20. Purulent infection and septicæmia .....	2	.....	2
22. Anthrax .....	2	2	.....
23. Rabies .....	1	1	.....
24. Tetanus .....	2	1	1
28. Tuberculosis of the lungs .....	11	11	.....
33. White swellings .....	2	2	.....
34. Tuberculosis of other organs .....	2	2	.....
37. Syphilis .....	13	13	.....
38. Gonococcus infection .....	15	15	.....
42. Cancer and other malignant tumors of the female organs ..	1	1	.....
44. Cancer and other malignant tumors of the skin .....	1	1	.....
45. Cancer and other malignant tumors of other organs or of organs not specified .....	2	2	.....
47. Acute articular rheumatism .....	7	7	.....
48. Chronic rheumatism and gout .....	5	5	.....

## HOSPITAL CASES—Continued

Disease	Patients		Died
	Admitted	Discharge	
49. Scurvy.....	1		1
61. Simple meningitis.....	1		1
66. Paralysis without specified cause.....	1	1	
68. Other mental alienation.....	2	2	
69. Epilepsy.....	1	1	
73. Neuralgia and neuritis.....	2	2	
74. Other diseases of the nervous system.....	8	8	
75. Diseases of the eyes and their annexe.....	6	6	
76. Diseases of the ears.....	1	1	
79. Organic diseases of the heart.....	5	5	
89. Acute bronchitis.....	6	6	
90. Chronic bronchitis.....	10	10	
91. Broncho-pneumonia.....	5	1	4
92. Pneumonia.....	7	7	
93. Pleurisy.....	2	2	
96. Asthma.....	3	3	
99. Diseases of the mouth and annexe.....	3	3	
103. Other diseases of the stomach (cancer excepted).....	35	35	
104. Diarrhoea and enteritis (under 2 years).....	10	7	3
105. Diarrhoea and enteritis (2 years and over).....	10	9	1
107. Intestinal parasites.....	10	9	1
108. Appendicitis and typhilitis.....	3	3	
109. Hernias intestinal obstructions.....	4	3	1
110. Other diseases of the intestine.....	1	1	
117. Simple peritonitis (nonpuerperal).....	1	1	
118. Other diseases of the digestive system (cancer and tuberculosis excepted).....	1	1	
119. Acute nephritis.....	3	2	1
120. Bright's disease.....	1	1	
122. Other diseases of the kidneys and annexe.....	1	1	
123. Calculi of the urinary passages.....	3	3	
124. Diseases of the bladder.....	11	11	
125. Other disease of the urethra, urinary abscess, etc.....	1	1	
127. Nonvenereal diseases of the male genital organs.....	4	4	
130. Other diseases of the uterus.....	3	3	
131. Cyst and other tumors of the ovary.....	1	1	
132. Salpingitis and other diseases of the female genital organs.....	1	1	
134. Accidents of pregnancy.....	2	2	
135. Puerperal hæmorrhage.....	1	1	
136. Other accidents of labor.....	1	1	
138. Puerperal albuminuria.....	1	1	
143. Furuncle.....	3	3	
144. Acute abscess.....	12	12	
154. Senility.....	1	1	
167. Burns (conflagrations excepted).....	3	2	1
170. Traumatism by firearms.....	2	2	
171. Traumatism by cutting or piercing instruments.....	5	4	1
172. Traumatism by fall.....	4	4	
174. Traumatism by machine.....	1		1
176. Traumatism by other crushing (vehicle, railway, etc.).....	5	5	
178. Injuries by animals.....	2	2	
186. Fracures (cause not specified).....	1	1	
186. Other external violence.....	1	1	
I. Parto normal.....	10	10	
II. Preez.....	2	2	
III. Ulcera tropical.....	8	8	
IV. Urticaria.....	2	2	
V. Bubas.....	2	2	
VI. Fistula annal.....	3	3	
VII. Aborto.....	2	2	
VIII. Adinitis supurada de la ingle.....	1	1	
IX. Inflamación de la mama.....	1	1	
X. Fiebre gástrica.....	1	1	
XI. Fimosis.....	1	1	
XII. Neurastinia.....	4	4	
XIII. Lipoma.....	1	1	
XIV. Purpura.....	1		1
XV. Histeria.....	2	2	
XVI. Diarrhoea simulada.....	1	1	
XVII. Condroma de la rodilla.....	1	1	
XVIII. Hidramios.....	1	1	
XIX. Quiste cebaceo.....	2	2	
XX. Hipertrophia de las amígdulas.....	1	1	
XXI. Fistula intestinal.....	1	1	
XXII. Annexitis.....	1	1	
Total.....	492	460	32

## ALBAY HOSPITAL

The hospital has a capacity of 40 beds, and is housed in the old military hospital building at Regan Barracks, in the municipality of Albay.

There were 54 operations performed, 4 being major and 50 minor. No cases of contagious disease were treated, excepting sixteen suspected lepers. There were 14 obstetrical and 16 gynecological cases treated.

The work for the year is as follows:

Patients remaining over from previous year.....	9
Patients admitted during the year.....	429
Patients discharged during the year.....	383
Patients died during the year.....	30
Patients remaining December 31, 1922.....	25

## By nationality:

Filipinos .....	392
Americans .....	6
Spaniards .....	7
Chinese .....	23
Others .....	1

Total .....	429
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Male patients.....	288
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Female patients.....	141
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## By ages:

Below 10 years.....	54
10 to 20 years.....	78
20 to 30 years.....	120
30 to 40 years.....	71
40 to 50 years.....	53
50 to 70 years.....	53

Total .....	429
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## SUBSISTENCE

Number of patients subsisted during the year.....	438
Number of attendance subsisted during the year.....	45
Number of employees subsisted during the year.....	11

Total .....	494
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Total number of days subsisted.....	11,183
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Average number of person subsisted per day.....	31
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Total cost of subsistence during the year.....	₱5,355.65
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Average expended per person per day.....	.48
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Received from patients during the year.....	3,103.17
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## Expended:

Salaries and wages.....	5,880.08
Consumption of supplies and materials.....	804.49

## SUBSISTENCE—Continued

## Expended—Continued

Subsistence .....	₱5,355.65
Miscellaneous .....	400.20

Total .....	12,440.42
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## Employees:

	Yearly salary
Chief nurse.....	₱900.00
Nurse .....	720.00
Cashier and property clerk.....	600.00
Student nurse.....	180.00
Student nurse.....	180.00
Student nurse.....	180.00
Cook .....	240.00
Laundryman .....	180.00
Gardener .....	180.00
House servant.....	180.00
Two house servants.....	300.00

Total .....	3,840.00
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## Outdoor clinic:

Consultations .....	400
Treatments .....	350
Operations .....	54

## LEYTE PROVINCIAL HOSPITAL

## ADMISSION

There were 233 patients treated in the hospital during the year, of which 14 cases were from Samar and 4 from Surigao. The number of patients admitted this year is an excess of 27 over those of the year.

## PERSONNEL

At the close of the year the hospital had the following personnel.

- 1 Chief (district health officer)
- 1 Resident physician
- 1 Dispensary attendant, cashier, clerk and property clerk
- 1 Chief nurse
- 1 Nurse
- 1 Hospital attendant
- 1 *Practicante*
- 1 Cook
- 1 Washerwoman and dressmaker
- 5 Helpers

## CHANGES IN THE HOSPITAL PERSONNEL

Mrs. Obdulia P. Valino, chief nurse, resigned effective April 1, 1922, services satisfactory.

Miss Petra Bahia was appointed chief nurse on June 1, 1922.

Miss Encarnacion Barrantes, hospital attendant, resigned effective September 1, 1922, services very satisfactory.

Mrs. Ciriaca D. Cañete was appointed hospital attendant on November 1, 1922.

#### IMPROVEMENTS

The hospital building was repainted during the middle part of the year, but for lack of funds about one-fourth of the building was only repainted.

#### RECOMMENDATIONS

The following improvements are recommended, unless same are included in the budget for 1923, as approved by the provincial board.

1. Appropriations of ₱2,500 for installation of sewage system for waste disposal.
2. Appropriation of ₱1,000 for repainting and repair of the buildings.

#### SUMMARY AND MISCELLANEOUS

Total number of patients remaining in the hospital, December 31, 1921 .....	5
Total number of patients admitted during the year .....	228
<b>Total</b> .....	<b>233</b>
 Total number of patients discharged, died, and absconded during the year .....	 219
Total number of patients remaining in the hospital, December 31, 1922 .....	14
<b>Total</b> .....	<b>233</b>
 Classification of cases:	
Medical .....	117
Surgical .....	65
Obstetrical .....	17
Nursery .....	8
Gynecological .....	8
Pediatrics .....	17
Eye, ear, nose, and throat .....	1
 Nationalities of patients:	
Filipinos .....	229
Americans .....	2
Europeans .....	2
 Sex of patients:	
Male .....	133
Female .....	100

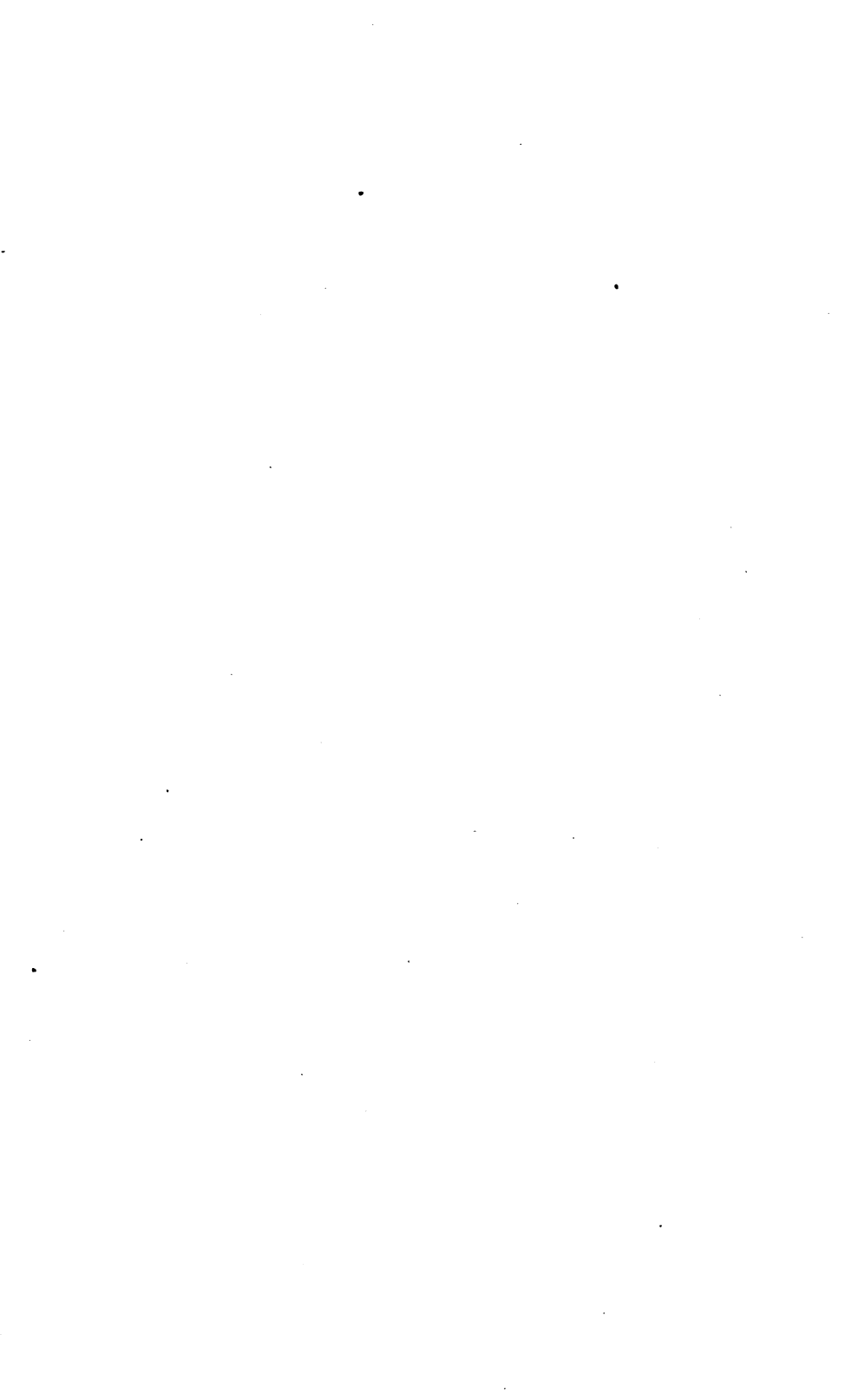
## SUMMARY AND MISCELLANEOUS—Continued

## Classes of service:

Charity .....	30
Government pay .....	56
Private pay .....	144
Government free .....	3

*Financial statement*

	General account		Month	Hospital account	
	Expend- itures	Appropri- ations		Receipt	Expend- itures
Compensation of officers and employees (A) .....	P6,004.31	P6,004.31	January .....	P374.70	P288.11
Wages (B) .....	1,027.61	1,027.61	February .....	384.02	306.83
Consumption of supplies and materials (C) .....	5,890.98	5,890.98	March .....	515.41	321.03
Illumination and power service (D) .....	390.37	390.37	April .....	131.09	258.17
Telegraph service (H) .....	4.22	4.22	May .....	234.01	233.61
Building repair service (I) .....	147.06	.....	June .....	233.10	234.06
Equipment repair service (J) .....	50.00	50.00	July .....	330.44	307.98
Other service .....	15.00	15.00	August .....	239.94	291.13
			September .....	324.18	338.03
			October .....	298.26	296.44
			November .....	204.01	348.27
			December .....	301.92	403.79
Total .....	13,529.55	13,529.55	.....	3,721.08	3,077.45





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# **STATISTICAL TABLES**

**PHILIPPINE HEALTH SERVICE**

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**JANUARY 1 TO DECEMBER 31, 1922**



## GENERAL STATISTICS

[Unless otherwise stated these statistics are for the fiscal year from January 1 to December 31, 1922]

### ESTIMATED POPULATION OF THE CITY OF MANILA FOR 1922.

#### BY NATIONALITIES

Nationality	Population
Americans.....	8,134
Filipinos.....	273,497
Spaniards.....	1,955
Other Europeans.....	1,126
Chinese.....	17,856
All others.....	2,186
<b>Total.....</b>	<b>299,754</b>

#### BY DISTRICTS

Health districts	Population
No. 1, Intramuros.....	36,856
No. 2, Meisic.....	102,678
No. 4, Sampaloc.....	48,651
No. 5, Tondo.....	79,477
No. 6, Paco.....	32,097
<b>Total.....</b>	<b>299,754</b>

\* Estimated on the basis of last figures published by the Census Office.

#### MARRIAGES

Nationality	Total marriages	Health districts—					Single males married—			Widowed males married—		
		No. 1	No. 2	No. 4	No. 5	No. 6	Single female	Widowed female	Divorced female	Single female	Widowed female	Divorced female
Americans.....	100	47	31	7	8	7	84	8	.....	4	2	.....
Filipinos.....	2,461	216	931	419	733	162	2,078	112	.....	159	112	.....
Spaniards.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....
Other Europeans.....	19	14	2	2	1	.....	13	3	.....	2	1	.....
Chinese.....	46	2	35	2	6	1	37	1	.....	7	1	.....
All others.....	4	2	1	.....	1	.....	4	.....	.....	.....	.....	.....
<b>Total.....</b>	<b>2,631</b>	<b>281</b>	<b>1,000</b>	<b>430</b>	<b>750</b>	<b>170</b>	<b>2,217</b>	<b>124</b>	<b>.....</b>	<b>172</b>	<b>116</b>	<b>.....</b>

## MARRIAGES—Continued

Nationality	Divorced males married—			Nationality of brides						Relation-ship	
	Single female	Widowed female	Divorced female	Americans	Filipinos	Spaniards	Other Europeans	Chinese	All others	Blood	Affinity
Americans.....	2	.....	.....	30	64	2	3	.....	1	.....	.....
Filipinos.....	.....	.....	.....	2,456	1	.....	2	1	2	.....	.....
Spaniards.....	.....	.....	.....	2	11	4	2	.....	.....	.....	.....
Other Europeans.....	.....	.....	.....	.....	25	.....	.....	21	.....	.....	.....
Chinese.....	.....	.....	.....	.....	3	.....	.....	.....	1	.....	.....
All others.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	2	.....	.....	32	2,560	6	7	22	4	.....	.....

## MARRIAGES BY AGE

Males		Females						
Age	Number	To 14 years	To 20 years	To 25 years	To 30 years	To 40 years	To 50 years	Over 50 years
To 14 years.....	.....	.....	.....	.....	.....	.....	.....	.....
To 20 years.....	552	5	495	45	3	4	.....	.....
To 25 years.....	1,212	6	861	278	57	9	1	.....
To 30 years.....	483	.....	250	134	79	19	1	.....
To 40 years.....	258	1	80	64	51	55	7	.....
To 50 years.....	95	.....	8	18	21	29	17	2
Over 50 years.....	31	.....	1	3	1	13	11	2
Total.....	2,631	12	1,695	542	212	129	37	4

## BIRTHS REPORTED IN THE CITY OF MANILA

[Stillbirths not included]

Nationality	Male	Female	Total	Annual birth rate per 1,000
Americans.....	52	68	120	38.29
Filipinos.....	6,355	5,893	12,248	44.78
Spaniards.....	24	21	45	23.02
Other Europeans.....	29	34	63	55.95
Chinese.....	288	241	529	29.63
All others.....	45	42	87	39.80
Total and average.....	6,793	6,299	13,092	43.68

## BIRTHS, BY DISTRICTS

Health districts	Legitimates			Illegitimates			Grand total	Annual birth rate per 1,000
	Male	Female	Total	Male	Female	Total		
No. 1, Intramuros.....	1,166	1,116	2,282	79	85	164	2,446	66.37
No. 2, Meisic.....	1,059	926	1,985	76	84	160	2,145	20.89
No. 4, Sampaloc.....	1,086	1,011	2,097	82	82	164	2,261	46.47
No. 5, Tondo.....	2,279	2,041	4,320	163	128	291	4,611	58.02
No. 6, Paco.....	756	762	1,518	47	64	111	1,629	50.75
Total.....	6,346	5,856	12,202	447	443	890	13,092	43.68

Number of births attended by physician, living, 3,467; stillbirths, 238.

Number of births attended by midwife, living, 1,274; stillbirths, 38.

Number of births attended by family, living, 8,351; stillbirths, 244.

## BIRTHS, ACCORDING TO NUMBER OF CHILDREN BORNE BY MOTHER

Number of births in the order in which the child was born, whether first child, second child, etc.	Living			Stillborn			Grand total
	Male	Female	Total	Male	Female	Total	
First.....	1,504	1,363	2,867	78	59	137	3,004
Second.....	1,142	1,093	2,235	40	33	73	2,308
Third.....	900	793	1,693	27	23	50	1,743
Fourth.....	778	710	1,488	15	24	39	1,527
Fifth.....	625	527	1,152	25	22	47	1,199
Sixth.....	516	495	1,011	15	15	30	1,041
Seventh.....	376	367	743	11	12	23	766
Eighth.....	316	277	593	15	11	26	619
Ninth.....	226	226	452	12	7	19	471
Tenth.....	184	176	360	17	14	31	391
Eleventh.....	89	100	189	8	6	14	203
Twelfth.....	59	68	127	3	8	11	138
Thirteenth.....	44	48	92	4	1	5	97
Fourteenth.....	16	26	44	5	1	6	50
Fifteenth.....	7	14	21	.....	2	2	23
Sixteenth.....	4	4	8	.....	.....	.....	8
Seventeenth.....	3	3	6	.....	.....	.....	6
Eighteenth.....	2	5	7	.....	.....	.....	7
Nineteenth.....	2	1	3	.....	.....	.....	3
Twentieth.....	.....	.....	.....	.....	1	.....	1
Twenty-third.....	.....	1	1	1	.....	1	2
Total.....	6,793	6,299	13,092	276	239	515	13,607

## NUMBER OF DEATHS AND DEATH RATE PER 1,000 AMONG RESIDENTS IN THE CITY OF MANILA, BY NATIONALITY

[Stillbirths not included]

Nationality	Male	Female	Total	Annual death rate per 1,000
Americans.....	24	10	34	10.85
Filipinos.....	3,677	3,143	6,820	24.94
Spaniards.....	36	8	44	22.51
Other Europeans.....	7	3	10	8.88
Chinese.....	228	38	266	14.90
All others.....	33	14	47	21.50
Total.....	4,005	3,216	7,221	24.09

## TOTAL DEATHS BY SOCIAL CONDITION, INCLUDING TRANSIENTS

[Stillbirths not included]

Social condition	Male	Female
Married.....	1,313	942
Divorced.....	2	2
Widowed.....	338	579
Single.....	3,034	2,125
Condition not stated.....	34	10
Total.....	4,721	3,658
Grand total.....	8,379	

Stillbirths.....	518
Number of deaths with medical attendance.....	4,278
Number of deaths without medical attendance.....	4,101

## DEATHS BY AGES IN THE CITY OF MANILA

[Stillbirths not included]

Ages	Residents		Transients		Total
	Male	Female	Male	Female	
Under 30 days .....	468	342	4	9	823
30 days to under 1 year .....	858	643	123	96	1,726
1 year to under 2 years .....	335	263	35	32	665
2 years to 4 years .....	292	275	26	27	620
5 years to 9 years .....	118	104	18	9	249
10 years to 14 years .....	72	54	18	15	159
15 years to 19 years .....	152	123	34	30	339
20 years to 29 years .....	404	283	143	62	892
30 years to 39 years .....	260	254	76	75	665
40 years to 49 years .....	309	200	86	39	634
50 years to 59 years .....	277	176	63	26	542
60 years to 69 years .....	199	155	44	10	408
70 years to 79 years .....	138	125	17	6	286
80 years to 89 years .....	65	113	6	3	187
90 years to 99 years .....	47	92	4	.....	143
100 years and over .....	6	11	1	1	19
Age not stated .....	5	3	1	.....	9
Total .....	4,005	3,216	699	440	8,360

There are 2 male Americans, 13 male and 2 female Filipinos, and 2 male Chinese, all of whom are of unknown residence not included in the above table.

## DEATH AND DEATH RATE PER 1,000, BY DISTRICTS, INCLUDING TRANSIENTS

[Stillbirths not included]

Health districts	Deaths	Annual date rate per 1,000
No. 1, Intramuros .....	1,494	40.54
No. 2, Meisic .....	1,297	12.63
No. 4, Sampaloc .....	1,321	25.30
No. 5, Tondo .....	3,470	43.66
No. 6, Paco .....	797	24.83
Total .....	8,379	27.95

71. Convulsions of infants (under 5 years of age).....











NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG RESIDENTS IN THE CITY OF MANILA—Continued.

Causes of death	1 year to under 2 years								2 years to 4 years															
	Americans		Filipinos		Spaniards		Other Europeans		Chinese		All others		Americans		Filipinos		Spaniards		Other Europeans		Chinese		All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
145. Other diseases of the skin and annexa.....																								
<i>XIII. Affections caused by external causes</i>																								
167. Burns (conflagration excepted).....																								
169. Accidental drowning.....																								
171. Traumatism by cutting or piercing instruments.....																								
175. Traumatism by other crushing (vehicles, railways, landslides, etc.).....																								
186. Other external violence.....																								
<i>XIV. Ill-defined diseases</i>																								
189. Cause of death not specified or ill defined.....			8	7																				
Total.....	1	333	258							3	2	1	1		289	271					1	4	1	
Grand total.....	1		591							3		3	1		560						5		1	

## NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG RESIDENTS IN THE CITY OF MANILA

[Stillbirths not included]

Causes of death	5 years to 9 years						10 years to 14 years					
	Americans		Filipinos		Spaniards		Other Europeans		Chinese		All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<i>I. General diseases</i>												
1. Typhoid fever.....			9	11							12	18
4. Malaria.....				2								1
10. Influenza.....			3	4								
12. Asiatic cholera.....			3	5								
14. Dysentery.....			12	7							3	1
20. Purulent infection and septicæmia.....											1	1
22. Anthrax.....											1	1
23. Rabies.....												
24. Tetanus.....			3								1	1
27. Beriberi.....				1							2	1
28. Tuberculosis of the lungs.....			15								9	6
29. Acute miliary tuberculosis.....				1							1	
30. Tuberculous meningitis.....			4	4							3	3
31. Abdominal tuberculosis.....				1							1	1
32. Pott's disease.....			1	1								
34. Tuberculosis of other organs.....			1	3							1	1
35. Disseminated tuberculosis.....			1									
36. Rickets.....			1								1	
45. Cancer and other malignant tumors of other organs or of organs not specified.....												
47. Acute articular rheumatism.....			1								1	1
<i>II. Diseases of the nervous system and of the organs of special sense</i>												
61. Simple meningitis:												
(1) Simple meningitis.....			3	6								1
(2) Cerebrospinal meningitis (undefined).....			1									
66. Paralysis without specified cause.....			2								1	
70. Convulsions (nonpuerperal) (5 years and over).....				1								

## NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG RESIDENTS OF THE CITY OF MANILA—Continued

Causes of death	5 year to 9 years						10 years to 14 years					
	Americans		Filipinos		Spaniards		Other Europeans		Chinese		All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<i>III. Diseases of the circulatory system</i>												
78. Acute endocarditis . . . . .			2	1							1	2
79. Organic diseases of the heart . . . . .			1								3	5
<i>IV. Diseases of the respiratory system</i>												
89. Acute bronchitis . . . . .			3									
90. Chronic bronchitis . . . . .			1	4								
91. Broncho-pneumonia . . . . .			22	24							5	4
92. Pneumonia . . . . .			1	1								
<i>V. Diseases of the digestive system</i>												
103. Other diseases of the stomach (cancer excepted) . . . . .			1									
105. Diarrhea and enteritis (2 years and over) . . . . .			6	7							2	1
107. Intestinal parasites . . . . .			1	2					1			
108. Appendicitis and typhilitis . . . . .											3	1
109. Hernias, intestinal obstructions . . . . .				1							1	
111. Acute yellow atrophy of the liver . . . . .											1	
<i>VI. Nonvenereal diseases of the genito-urinary system and annexa</i>												
119. Acute nephritis . . . . .			2	3							4	1
120. Bright's disease . . . . .			7	4							1	
<i>VIII. Diseases of the skin and of the cellular tissue</i>												
142. Gangrene . . . . .											1	
<i>XIII. Affections caused by external causes</i>												
167. Burns (conflagration excepted) . . . . .												
169. Accidental drowning . . . . .												
172. Traumatism by fall . . . . .			2								4	1
176. Traumatism by other crushing (vehicles, railways, landslides, etc.) . . . . .			1							1		
			3								2	2
												2









NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG RESIDENTS IN THE CITY OF MANILA—Continued

Causes of death	15 years to 19 years												20 years to 29 years											
	Ameri- cans		Filipinos		Span- iards		Other Euro- peans		Chinese		All others		Ameri- cans		Filipinos		Span- iards		Other Euro- peans		Chinese		All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<i>XIII. Affections caused by external causes—Continued</i>																								
183. Homicide by cutting or piercing instruments.....																								
184. Homicide by other means.....																								
185. Fractures (cause not specified).....			1																					
186. Other external violence.....																								
<i>XIV. Ill-defined diseases</i>																								
189. Cause of death not specified or ill defined.....			1	1																				
Total.....	138	122	1						13	1					367	275	1		2		29	2	6	5
Grand total.....			260		1				14						642		1		2		31		1	1
Causes of death	30 years to 39 years												40 years to 49 years											
	Ameri- cans		Filipinos		Span- iards		Other Euro- peans		Chinese		All others		Ameri- cans		Filipinos		Span- iards		Other Euro- peans		Chinese		All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<i>I. General diseases</i>																								
1. Typhoid fever.....																								
4. Malaria.....	15	12							1	1	2				5	3					2			
10. Influenza.....	7	2													1	1								







NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG RESIDENTS IN THE CITY OF MANILA—Continued

Causes of death	30 years to 39 years										40 years to 49 years													
	Ameri- cans		Filipinos		Span- iards		Other Euro- peans		Chinese		All others		Ameri- cans		Filipinos		Span- iards		Other Euro- peans		Chinese		All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
XIV. Ill-defined diseases																								
			2	2			1								2	1								
	2		239	248	1	1	2	1	9	3	7	2	10	2	233	192	5	1	1		56	5	4	
Total	2																							
Grand total	2	487	2		3	12	8		12						425		6	1		61			4	

Causes of death	50 years to 59 years								60 years to 69 years																
	Americans		Filipinos		Spaniards		Other Europeans		Chinese		All others		Americans		Filipinos		Spaniards		Other Europeans		Chinese		All others		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
<i>I. General diseases</i>  1. Typhoid fever..... 4a. Malaria..... 4a. Malarial cachexia..... 10. Influenza..... 12. Asiatic cholera..... 14. Dysentery..... 17. Leprosy..... 20. Purulent infection and septicaemia..... 22. Anthrax..... 24. Tetanus..... 27. Beriberi..... 28. Tuberculosis of the lungs.....			2	3							1				1	2									
			1	2																					
			1		1											2	1								
																1	1								
																1	1								
																4	4								
			4	2												3	3							1	
			1													1	1								
			2	2												1	1								
			3	2												1	1								
			93	83												62	49					3			



[illegible]





NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG RESIDENTS IN THE CITY OF MANILA—Continued

Causes of death	70 years and over								Unknown															
	Americans		Filipinos		Spaniards		Other Europeans		Chinese		All others		Americans		Filipinos		Spaniards		Other Europeans		Chinese		All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<i>I. General diseases—Continued</i>																								
31. Abdominal tuberculosis.....			1	3																				
40. Cancer and other malignant tumors of the stomach, liver.....			2	3																				
41. Cancer and other malignant tumors of the peritoneum, intestines, rectum.....							1																	
42. Cancer and other malignant tumors of the female genital organs.....																								
43. Cancer and other malignant tumors of the breast.....																								
45. Cancer and other malignant tumors of other organs or of organs not specified.....			2	1	1																			
47. Acute articular rheumatism.....			1																					
50. Diabetes.....			2	2																				
<i>I. Diseases of the nervous system and of the organs of special sense</i>																								
62. Locomotor ataxia.....																								
64. Cerebral hemorrhage, apoplexy.....			9	9	1				1															
66. Paralysis without specified cause.....			6	6					1															
68. Other forms of mental alienation.....				1												2								
<i>IIII. Diseases of the circulatory system</i>																								
77. Pericarditis.....																								
78. Acute endocarditis.....				1												1								
79. Organic diseases of the heart.....			8	12																				
80. Angina pectoris.....			2	1																				
81. Diseases of the arteries, atheroma, aneurysm, etc.....				2					1															



NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG RESIDENTS IN THE CITY OF MANILA  
[Stillbirths not included]

Causes of death	Total										Grand total		
	Americans		Filipinos		Spaniards		Other Europeans		Chinese			All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		Male	Female
<i>I. General diseases</i>													
1. Typhoid fever.....			163	137		1	2		13	1	8	2	327
4. Malaria.....			20	15									35
4a. Malarial cachexia.....			1										1
6. Measles.....			4	5									9
8. Whooping cough.....			3	2									5
9. Diphtheria and croup.....			9	6									15
10. Influenza.....	1		18	18	2								39
12. Asiatic cholera.....			6	16									22
14. Dysentery.....	2	2	60	53		1			3		3		124
17. Leprosy.....			8	1									9
18. Erysipelas.....			2	3									5
19. Other epidemic diseases.....			7	3									10
20. Purulent, infection and septicaemia.....		1	18	11							1		31
22. Anthrax.....			2	3									5
23. Rabies.....			2										2
24. Tetanus.....			40	16					1				57
27. Beriberi.....			16	20					5				43
27a. Beriberi, infantile.....			344	249					8		1		605
28. Tuberculosis of the lungs.....			674	569	1	1			54	3	3	1	1,307
29. Acute miliary tuberculosis.....	1								1				1
30. Tuberculous meningitis.....			6	5					1				12
31. Abdominal tuberculosis.....		1	43	36					1				81
32. Pott's disease.....			24	18					4				46
34. Tuberculosis of other organs.....			7	10									17
35. Disseminated tuberculosis.....			15	8	1				4	1			29
36. Rickets.....			1	2									3
37. Syphilis.....	1		8	3	2				3				17
38. Gonococcus infection.....			1										1
39. Cancer and other malignant tumors of buccal cavity.....			9	4									13
40. Cancer and other malignant tumor of the stomach, liver.....			7	11	1				4				23
41. Cancer and other malignant tumors of the peritoneum, intestines, rectum.....			5	3									10
42. Cancer and other malignant tumors of the female genital organs.....				23		1					1		24
43. Cancer and other malignant tumors of the breast.....				8									8
44. Cancer and other malignant tumors of the skin.....			1	2									3

45. Cancer and other malignant tumors of other organs or of organs not specified.....	11	8	1	1	1	1	21
47. Acute articular rheumatism.....	5	2	1	1	1	1	8
48. Chronic rheumatism and gout.....	6	6	2	2	1	2	2
50. Diabetes.....	6	2	1	1	1	1	17
51. Exophthalmic goitre.....	2	4	1	1	1	1	2
52. Addison's disease.....	1	1	1	1	1	1	1
53. Leukæmia.....	2	4	1	1	1	1	10
54. Anæmia, chlorosis.....	1	2	1	1	1	1	3
55. Other general diseases.....	1	1	1	1	1	1	3
56. Alcoholism (acute or chronic).....	2	1	1	1	1	1	3

## II. Diseases of the nervous system and of the organs of special sense

60. Encephalitis.....	2	7	1	1	1	1	9
61. Simple meningitis.....	1	112	85	2	1	3	204
(1) Simple meningitis.....	4	8	1	1	1	1	10
(2) Cerebro-spinal meningitis (undefined).....	1	1	1	1	1	1	4
(3) Cerebro-spinal fever.....	1	1	1	1	1	1	1
62. Locomotor ataxia.....	87	32	3	10	1	1	3
63. Other diseases of the spinal cord.....	18	17	1	1	1	1	83
64. Cerebral hæmorrhage, apoplexy.....	26	14	1	1	1	1	36
66. Paralysis without specified cause.....	3	1	1	1	1	1	4
67. General paralysis of the insane.....	10	4	1	1	1	1	41
68. Other forms of mental alienation.....	1	1	1	1	1	1	5
69. Epilepsy.....	1	1	1	1	1	1	1
70. Convulsions (nonpuerperal) (5 years and over).....	10	4	1	1	1	1	15
71. Convulsions of infants (under 5 years of age).....	1	1	1	1	1	1	1
74. Other diseases of the nervous system.....	1	1	1	1	1	1	1

## III. Diseases of the circulatory system

77. Pericarditis.....	2	14	1	1	1	1	2
78. Acute endocarditis.....	12	58	5	14	3	1	26
79. Organic diseases of the heart.....	61	5	1	1	1	1	144
80. Aortic pectoris.....	13	2	1	1	1	1	19
81. Diseases of the arteries, atheroma, aneurysm, etc.....	4	1	1	1	1	1	17
82. Embolism and thrombosis.....	1	1	1	1	1	1	2
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.).....	2	1	1	1	1	1	3
84. Diseases of the lymphatic system (lymphangitis, etc.).....	1	1	1	1	1	1	3

## IV. Diseases of the respiratory system

89. Acute bronchitis.....	264	192	1	6	5	1	467
90. Chronic bronchitis.....	87	84	1	4	1	1	179
91. Broncho-pneumonia.....	281	228	2	4	6	1	519
92. Pneumonia.....	58	28	1	7	1	8	100
93. Pleurisy.....	8	9	1	1	1	1	17
94. Pulmonary congestion, pulmonary apoplexy.....	1	3	1	1	1	1	4
95. Gangrene of the lungs.....	1	6	1	1	1	1	6
96. Asthma.....	17	20	1	1	1	1	37
98. Other diseases of the respiratory system (tuberculosis excepted).....	3	2	1	1	1	1	5

NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG RESIDENTS IN THE CITY OF MANILA—Continued

Causes of death	Total										Grand total		
	Americans		Filipinos		Spaniards		Other Europeans		Chinese			All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		Male	Female
V. Diseases of the digestive system													
99. Diseases of the mouth and annæa.....				2			1					3	
100. Diseases of the pharynx.....			3									3	
102. Ulcer of the stomach.....			2		1						1	7	
103. Other diseases of the stomach (cancer excepted)			13	7					1			22	
104. Diarrhœa and enteritis (under 2 years)			153	125	1				3		1	285	
105. Diarrhœa and enteritis (2 years and over)			69	70	1				1		1	142	
107. Intestinal parasites.....			8	4					1			13	
108. Appendicitis and typhlitis.....	1		15	5			1		5			27	
109. Hernias, intestinal obstructions.....			5	7					3			15	
110. Other diseases of the intestines.....			1									1	
111. Acute yellow atrophy of the liver.....			1									1	
113. Cirrhosis of the liver.....	1		12	7								21	
114. Biliary calculi.....			3	1	1						1	5	
115. Other diseases of the liver.....	1		15	10								26	
117. Simple peritonitis (nonpuerperal)	1		6	6	1				5	1		20	
118. Other diseases of the digestive system (cancer and tuberculosis excepted).....*				1								1	
VI. Nonvenereal diseases of the genito-urinary system and annæra													
119. Acute nephritis.....			43	37	1				7			88	
120. Bright's disease.....			91	102	1				14	1		211	
122. Other diseases of the kidneys and annæra.....	1	1										6	
123. Calculi of the urinary passages.....			2	2								4	
124. Diseases of the bladder.....			2	3								5	
126. Diseases of the prostate.....			4	4								8	
129. Uterine tumor (noncancerous)			1									1	
130. Other diseases of the uterus.....				2								2	
132. Salpingitis and other diseases of the female genital organs.....				4					4			4	
VII. The puerperal state													
134. Accidents of pregnancy.....				1								1	
135. Puerperal hæmorrhage.....				2								2	
136. Other accidents of labor.....				25								25	
137. Puerperal septicæmia.....				2								2	
138. Puerperal albuminuria and convulsions.....				23								23	
VIII. Diseases of the skin and of the cellular tissue													
142. Gangrene.....			5	2								7	

143. Furuncle.....	5	6	1	1	12
144. Acute abscess.....	2	4	1	1	7
145. Other diseases of the skin and annexa.....	4	5			9
IX. Diseases of the bones and of the organs of locomotion.....					
146. Diseases of the bones (tuberculosis excepted).....	2	1			3
X. Malformations.....					
150. Congenital malformations (stillbirths not included):					
(1) Hydrocephalus.....	1	1			1
(2) Congenital malformations of the heart.....	3	1			6
(3) Other congenital malformations.....	4				6
XI. Diseases of early infancy.....					
151. Congenital debility, icterus, and sclerema:					
(1) Premature birth (not stillborn).....	2	36			38
(2) Congenital debility.....	1	248			581
152. Other diseases peculiar to early infancy:					
(1) Injuries at birth (not stillborn).....	3	3			6
(2) Other causes peculiar to early infancy.....	1	19			41
XII. Old age.....					
54. Senility.....	131	212	1	1	346
XIII. Affections caused by external causes.....					
155. Suicide by poison.....	3	2			5
157. Suicide by hanging or strangulation.....	1				1
158. Suicide by drowning.....	1				1
164. Poisoning by food.....	1				1
165b. Other acute poisonings.....	1				1
166. Conflagration.....	4	3			16
167. Burns (conflagration excepted).....	15	1			16
169. Accidental drowning.....	1				1
170. Traumatism by firearms.....	1	2			2
171. Traumatism by cutting or piercing instruments.....	7	5			11
172. Traumatism by fall.....	13	5			21
176. Traumatism by other crushing (vehicles, railways, landslides, etc).....	2				2
181. Electricity (lightning excepted).....	5	1			1
182. Homicide by firearms.....	6	2			16
183. Homicide by cutting or piercing instruments.....	2				8
184. Homicide by other means.....	6	1			8
185. Fractures (cause not specified).....	4				4
186. Other external violence.....					
XIV. Ill-defined diseases.....					
189. Cause of death not specified or ill defined.....	30	23		1	55
Total.....	24	10	36	8	7,221
Grand total.....	34	6,820	44	10	7,221







[illegible]

## VI. Nonvenereal diseases of the genitourinary system and annera

1119. Acute nephritis .....  
120. Bright's disease .....

XIII. Affections caused by external causes

### XIII. Affections caused by external causes

175. Traumatism by other crushing (vehicles, railways, landslides, etc.).







<b><i>VI. Nonvenereal diseases of the genito-urinary system and annexa</i></b>												
119. Acute nephritis.....						3					1	
120. Bright's disease.....						4						
131. Cysts and other tumors of the ovary.....												
132. Salpingitis and other diseases of the female genital organs.....												
<b><i>VII. The puerperal state</i></b>												
135. Puerperal hemorrhage.....												
136. Other accidents of labor.....												
137. Puerperal septicæmia.....												
138. Puerperal albuminuria and convulsions.....												
<b><i>VIII. Diseases of the skin and of the cellular tissue</i></b>												
142. Gangrene.....												
143. Furuncle.....												
144. Acute abscess.....												
<b><i>IX. Diseases of the bones and of the organs of locomotion</i></b>												
146. Diseases of the bones (tuberculosis excepted).....												
<b><i>XIII. Affections caused by external causes</i></b>												
157. Suicide by hanging or strangulation.....												
157. Burns (conflagration excepted).....												
169. Accidental drowning.....												
172. Traumatism by fall.....												
175. Traumatism by other crushing (vehicles, railways, landslides, etc.).....												
183. Homicide by cutting or piercing instruments.....												
184. Homicide by other means.....												
185. Fractures (cause not specified).....												
Total.....	32	30				1	121	59		1	14	1
Grand total.....	62			2		1	180			1	16	7

[illegible]













**[Stillbirths not included]**

[illegible]

NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG TRANSIENTS IN THE CITY OF MANILA—Continued

Causes of death	Total								Grand total
	Americans		Filipinos		Spaniards		Other Europeans		
	Male	Female	Male	Female	Male	Female	Male	Female	
<i>I. General diseases</i>									
1. Typhoid fever.....			32	33					75
4. Malaria.....			8	1					11
4a. Malarial cachexia.....									1
6. Measles.....			2	2					4
8. Whooping cough.....			1	4					1
9. Diphtheria and croup.....			3	3					7
10. Influenza.....			11	1					14
12. Asiatic cholera.....			1	3					2
14. Dysentery.....			8	8	1				22
15. Plague.....	1								1
17. Leprosy.....			6	2					8
18. Erysipelas.....			3	1					1
19. Other epidemic diseases.....		1	7	3					4
20. Purulent infection and septicæmia.....			3	3					10
21. Glanders.....					1				1
22. Anthrax.....			3	1					4
23. Rabies.....			1	3					1
24. Tetanus.....			7	3					10
27. Beriberi.....			37	3					8
27a. Beriberi, infantile.....			3	28					66
28. Tuberculosis of the lungs.....			37	48					152
29. Acute miliary tuberculosis.....	1		90				1		3
30. Tuberculosis meningitis.....			3	3					10
31. Abdominal tuberculosis.....			6	4					13
35. Disseminated tuberculosis.....			10	3					7
36. Rickets.....			5	1			1		1
37. Syphilis.....			1	1					2
39. Cancer and other malignant tumors of the buccal cavity.....	1		3	1					4
40. Cancer and other malignant tumors of the stomach, liver.....			2	2					4
41. Cancer and other malignant tumors of the peritoneum, intestines, rectum.....			6	2	1				5
42. Cancer and other malignant tumors of the female genital organs.....			2	2					1
43. Cancer and other malignant tumors of the breasts.....			5	1					1
44. Cancer and other malignant tumors of the skin.....			1	1					1
45. Cancer and other malignant tumors of other organs or of organs not specified.....			10	4					14

## NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE, AMONG TRANSIENTS IN THE CITY OF MANILA—Continued

Causes of death	Total										Grand total		
	Americans		Filipinos		Spaniards		Other Europeans		Chinese			All others	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		Male	Female
<i>I. General diseases—Continued</i>													
46. Other tumors (tumors of the female genital organs excepted).....				1								1	
49. Scurvy.....												1	
50. Diabetes.....			1									1	
51. Exophthalmic goitre.....				1								1	
53. Leuchæmia.....			1									1	
54. Anæmia, chlorosis.....	1			1								2	
56. Alcoholism (acute or chronic).....									1			1	
<i>II. Diseases of the nervous system and of the organs of special sense</i>													
61. Simple meningitis:													
(1) Simple meningitis.....			12	12						1		25	
(2) Cerebro-spinal meningitis (undefined).....				2								2	
63. Other diseases of the spinal cord.....				2								2	
64. Cerebral hæmorrhage, apoplexy.....			8	3					2			13	
66. Paralysis without specified cause.....			1									1	
68. Other forms of mental alienation.....	1		7	1								9	
69. Epilepsy.....			2									2	
71. Convulsions of infants (under 5 years of age).....			1	1								2	
76. Diseases of the ears.....			1									1	
<i>III. Diseases of the circulatory system</i>													
78. Acute endocarditis.....				3								4	
79. Organic diseases of the heart.....	3		15	12	1		1		4	1	1	37	
80. Angina pectoris.....			3									3	
82. Embolism and thrombosis.....			1									1	
<i>IV. Diseases of the respiratory system</i>													
87. Diseases of the larynx.....				1								1	
88. Diseases of the thyroid body.....			1	1								2	
89. Acute bronchitis.....			31	24								55	
90. Chronic bronchitis.....			4	11								15	
91. Broncho-pneumonia.....			40	40					3			83	
92. Pneumonia.....	1		40	6					1			48	
93. Pleurisy.....			1	1								2	
98. Other diseases of the respiratory system (tuberculosis excepted).....			1									1	







## INFANT MORTALITY \*

Causes of death	Under 24 hours	24 hours to under 36 hours	36 hours to under 48 hours	48 hours to under 14 days	14 days to under 1 year	Total
4. Malaria . . . . .					3	3
6. Measles . . . . .					3	3
8. Whooping cough . . . . .					3	3
9. Diphtheria and croup . . . . .					1	1
10. Influenza . . . . .					10	10
14. Dysentery . . . . .					8	8
18. Erysipelas . . . . .					5	5
20. Purulent infection and septicæmia . . . . .					5	5
24. Tetanus . . . . .		1		35	5	41
27a. Beriberi, infantile . . . . .	2			88	581	671
28. Tuberculosis of the lungs . . . . .					5	5
30. Tuberculous meningitis . . . . .				1	11	12
34. Tuberculosis of other organs . . . . .					3	3
35. Disseminated tuberculosis . . . . .					2	2
36. Rickets . . . . .					3	3
37. Syphilis . . . . .					7	7
45. Cancer and other malignant tumors of other organs or of organs not spec- ified . . . . .				1	1	2
54. Anæmia, chlorosis . . . . .					1	1
55. Other general diseases . . . . .					2	2
61. Simple meningitis:						
(1) Simple meningitis . . . . .				1	67	68
(2) Cerebro-spinal meningitis (undefined) . . . . .					4	4
(3) Cerebro-spinal fever . . . . .					2	2
71. Convulsions of infants . . . . .	1			1	11	13
84. Disease of the lymphatic system (lymphangitis, etc.) . . . . .	2					2
89. Acute bronchitis . . . . .				1	355	356
90. Chronic bronchitis . . . . .					69	69
91. Broncho-pneumonia . . . . .	1			6	194	201
92. Pneumonia . . . . .				1	12	13
93. Pleurisy . . . . .					7	7
94. Pulmonary congestion, pulmonary apoplexy . . . . .	1	1				2
100. Diseases of the pharynx . . . . .					1	1
103. Other diseases of the stomach (cancer excepted) . . . . .					4	4
104. Diarrhœa and enteritis . . . . .				2	207	209
109. Hernia, intestinal obstruction . . . . .				2		2
115. Other diseases of the liver . . . . .					1	1
117. Simple peritonitis (nonpuerperal) . . . . .					3	3
119. Acute nephritis . . . . .					16	16
120. Bright's disease . . . . .					7	7
122. Other diseases of the kidneys and annexa . . . . .					2	2
124. Diseases of the bladder . . . . .					1	1
142. Gangrene . . . . .					2	2
143. Furuncle . . . . .					4	4
144. Acute abscess . . . . .					2	2
145. Other diseases of the skin and annexa . . . . .					5	5
146. Diseases of the bones (tuberculosis excepted) . . . . .					2	2
150. Congenital malformations (stillbirths not included):						
(1) Hydrocephalus . . . . .					1	1
(2) Congenital malformations of the heart . . . . .	2			5		7
(3) Other congenital malforma- tions . . . . .	2			4	1	7
151. Congenital debility, icterus, and scler- ema:						
(1) Premature birth (not still- born) . . . . .	57	7	2	14	9	89
(2) Congenital debility . . . . .	162	27	3	211	199	602
152. Other causes peculiar to early infancy:						
(1) Injuries at birth (not still- born) . . . . .	4	1			1	6
(2) Other causes peculiar to early infancy . . . . .	13	1		17	11	42
165b. Other acute poisonings . . . . .					1	1
167. Burns (conflagration excepted) . . . . .					1	1
189. Cause of death not specified or ill de- fined . . . . .	1			1		2
Total . . . . .	248	38	5	391	1,861	2,543

\* Including transients.



## CITY MORGUE REPORT

Dispositions	Number of bodies	Dispositions	Number of bodies
Remaining from last year .....	58	Transferred to—	
Received during the year .....	1,281	Army morgue .....	4
Total .....	1,339	Government museum .....	10
Buried by—		Philippine Dental College .....	2
City .....	445	Private morgue .....	5
Family .....	605	Provinces .....	168
		Santo Tomas University .....	9
		Remaining at the end of the year ..	91

## DISINTERMENTS

Cemetery	Number	Cemetery	Number
Balicbalic. ....	23	Singalong .....	2
Binondo .....	75	Sampaloc .....	1
Chinese .....	68	Sta. Ana .....	7
Malate .....	37	Sta. Cruz .....	1
Norte .....	3	Tondo .....	10
Paco .....	3	Total .....	227

## REPORT OF DISINFECTIONS PERFORMED DURING THE YEAR 1922

Causes of disinfections	Disinfections
Cholera (contact and carriers) .....	27,826
Diphtheria (contacts and carriers) .....	1,461
Dysentery (contacts and carriers) .....	10,472
Influenza .....	3
Leprosy .....	64
Mumps .....	
Pulmonary tuberculosis .....	117
Smallpox, varioloid, varicella, and measles ..	54
Typhoid (contacts and carriers) .....	103,852
Exhumations .....	460
Insanitary condition .....	7,189
Total .....	151,498

## TYPHOID AND PARATYPHOID REPORTED DURING THE CALENDAR YEAR 1922, CITY OF MANILA

Months	Health districts—														Total
	No. 1		No. 2		No. 4		No. 5		No. 6		Provin- cial case				
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths			
January . . . . .	10	3	13	6	27	13	13	5	8	5	14	5	85	37	
February . . . . .	17	4	34	10	52	17	23	3	5	3	20	5	151	42	
March . . . . .	19	2	66	23	58	14	64	15	17	8	22	9	246	71	
April . . . . .	23	5	47	10	55	7	45	11	11	4	38	9	219	46	
May . . . . .	12	3	27	4	23	10	39	7	10	3	27	9	138	36	
June . . . . .	12	1	32	12	16	6	30	9	14	3	27	6	131	37	
July . . . . .	22	1	19	6	21	1	20	3	6	3	22	2	110	15	
August . . . . .	10	2	25	5	17	2	30	6	6	1	18	6	106	21	
September . . . . .	8	1	23	8	12	25	6	5	1	23	6	96	22		
October . . . . .	8	4	26	3	16	4	25	3	7	6	27	6	109	26	
November . . . . .	19	3	20	6	11	2	24	6	4	1	29	10	107	28	
December . . . . .	10	3	17	5	9	3	17	7	11	2	12	1	76	21	
Total . . . . .	170	31	349	98	317	79	355	81	104	39	279	74	1,574	402	

Paratyphoid: Provinces, 27 cases, 3 deaths; city, 16 cases, 2 deaths. All are included in the above table.

<sup>a</sup> Including 1 foreign case.

<sup>b</sup> Including 2 foreign cases.

**TYPHOID CARRIERS DETECTED DURING THE CALENDAR YEAR 1922**  
**CITY OF MANILA**

Months	Health districts													
	No. 1		No. 2		No. 4		No. 5		No. 6		Provin- cial cases		Total	
	Living	Dead	Living	Dead	Living	Dead	Living	Dead	Living	Dead	Living	Dead	Living	Dead
January.....													18	
February.....	4		4		6		1		3				20	
March.....	3		2		11		1		3				34	
April.....	3		5		23		2		1				35	
May.....	2		5		20		5		3				13	
June.....					10				3				13	
July.....	3		4		4		1				1		13	
August.....	1		2		3		4						10	
September.....			1		11	1							12	1
October.....	2		5		25								32	
November.....	1				1								2	
December.....	6	1	2		1								9	1
Total.....	25	1	30		115	1	14		13		1		198	2

One hundred eight of the above total were positive carriers and 92 were presumptive carriers.

Presumptive carriers are those having blood positive for seroreaction but negative stool.

## CAMPAIGN FOR THE DETECTION OF TYPHOID CARRIERS FOR THE CALENDAR YEAR 1922, CITY OF MANILA

Examination of blood (sero-reaction)												
Months	Contacts				Neighbors				Food handlers			
	Number of samples negative	Positive for typhoid A.	Positive for para-typhoid B.	Percent- age of positive	N number of samples negative	Positive for typhoid A.	Positive for para- typhoid B.	Percent- age of positives	Number of samples negative	Positive for typhoid A.	Positive for para- typhoid B.	Percent- age of positives
January.....	69				18				33			
February.....	171	14		7.57	25				13			13.33
March.....	155	3		1.90	26				4	2		20.00
April.....	297	22		6.90	6	1		14.29	1			
May.....	134	13		8.84	2	1		33.33	1			
June.....		4		100.00	2	2		50.00				
July.....	7	2		22.22								
August.....	12		2	33.33								
September.....	10	5		33.33	3					1		100.00
October.....	37	2	2	15.91	33							
November.....	20	7		4.76	7							
December.....	23	1		4.17								
Total.....	935	75	4	7.79	79	4		4.82	51	3	1	7.27

Examinations of blood (sero-reaction)												
Months	Water carriers				Dead bodies				Discharged			
	Number of samples negative	Positive for typhoid A.	Positive for para- typhoid B.	Percent- age of positives	Number of samples negative	Positive for typhoid A.	Positive for para- typhoid B.	Percent- age of positives	Number of samples negative	Positive for typhoid A.	Positive for para- typhoid B.	Percent- age of positives
January.....												
February.....												
March.....	2	1		33.33								
April.....	6								1	1		50.00
May.....												
June.....												
July.....									1	1		50.00
August.....												
September.....					1		1	50.00	1		1	50.00
October.....												
November.....												
December.....												
Total.....	8	1		11.11	1		1	50.00	3	2	1	50.00

## CAMPAIGN FOR THE DETECTION OF TYPHOID CARRIERS FOR THE CALENDAR YEAR 1922, CITY OF MANILA—Continued

Months	Examination of feces												
	Contacts				Neighbors				Food handlers				
	Number of samples negative	Positive for typhoid A.	Positive for para-typhoid B.	Percent-ages post-ives	Number of samples negative	Positive for typhoid A.	Positive for para-typhoid B.	Percent-ages post-ives	Number of samples negative	Positive for typhoid A.	Positive for para-typhoid B.	Percent-ages post-ives	
January.....	277	4		1.42									
February.....	1,831	7		.44	10	6							
March.....	826	5	1	.84	428		2	.47	85				
April.....	360		1	1.64	284	1		.70	730	7	2	1.22	
May.....	162		6	1.22	28		1		207	1	1	.96	
June.....	138	1	6	4.83	9	1		10.00	8				
July.....	246		3	1.20					197				
August.....	228	1	1	.87					391	3		.75	
September.....	231	3	1	2.94	10		1	9.10	725	7	6	1.89	
October.....	197			.76	3			25.00	638				
November.....	131	1			2				346	7		1.98	
December.....													
Total.....	4,629	22	20	1.00	774	10	2	1	3,327	14	18	4	1.07

Months	Examination of feces												
	Water carriers				Dead bodies				Discharged				
	Number of samples negative	Positive for typhoid A.	Positive for para-typhoid B.	Percent-ages post-ives	Number of samples negative	Positive for typhoid A.	Positive for para-typhoid B.	Percent-ages post-ives	Number of samples negative	Positive for typhoid A.	Positive for para-typhoid B.	Percent-ages post-ives	
January.....									3				
February.....									4				
March.....									53				
April.....	4	1		100.00					1		1	55.00	
May.....	7	2		33.33					3	1	2	60.00	
June.....	12		1	7.69					8				
July.....	17				3				143				
August.....	18								95				
September.....	8				5				60				
October.....	9	1		11.11					34		1	3.23	
November.....	2				3	1		25.00	44				
December.....													
Total.....	77	1	4	6.09	20	1		4.76	448	1	4	1	1.82



## DYSENTERIES REPORTED DURING THE CALENDAR YEAR 1922, CITY OF MANILA

Months	Health districts													
	No. 1		No. 2		No. 4		No. 5		No. 6		Provin- cial cases		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
January.	2		11	8	3	2	5	4	2	1	6	1	29	16
February.	2		4		6	3	5		4	1	2	1	23	5
March.	1				5	3	6	3			1	1	13	7
April.	1		2	1	1	1	4		1	1	3		12	3
May.	1	1	3	2	4	3	1	1			1	1	10	8
June.	2		2		13	10	5	3	1	1	6	4	29	18
July.	5	1	5	3	14	12	13	8			9	6	47	30
August.	2	1	9	1	18	9	10	4	6	4	8	2	53	21
September.	2	1	4	1	6	4	4	1	3	2			19	9
October.	2		3	1	2	1	5	3			6	3	18	8
November.	2	2	8	1	5	3	3		1	1	2	1	21	8
December.	1	1	9	5	1		7	3	2	2	4	2	24	13
Total	24	7	60	23	78	51	68	30	20	13	48	22	298	146

Dysentery carrier—1 living.

## CHOLERA CASES REPORTED DURING THE CALENDAR YEAR 1922, CITY OF MANILA

Months	Health districts													
	No. 1		No. 2		No. 4		No. 5		No. 6		Provin- cial cases		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
January .....	7		11	2	25	12	10	1	4		6	1	63	16
February .....	1	1	3	2	2	1	1						7	4
March .....					3	1							3	1
April .....					1	1							1	1
May .....														
June .....														
July .....											1		1	
August .....							1	1				1		2
September .....														
October .....														
November .....														
December .....														
Total .....	8	1	14	4	31	15	12	2	4		7	2	76	24

CHOLERA CARRIERS DETECTED DURING THE CALENDAR YEAR 1922  
CITY OF MANILA

Months	Health districts														Total	
	No. 1		No. 2		No. 4		No. 5		No. 6		Provin- cial cases					
	Living	Dead	Living	Dead	Living	Dead	Living	Dead	Living	Dead	Living	Dead	Living	Dead		
January	10	1	69	20	23	19	46	23	45	16	6	1	204	85		
February	1	...	4	...	10	2	2	...	...	...	1	...	18	2		
March	1	...	2	3	...	7	...	4	...	...	...	...	3	16		
April	...	1	1	3	...	...	...	2	...	1	2	1	3	8		
May	...	...	...	...	...	...	...	...	...	...	5	...	5	...		
June	...	...	...	...	2	...	3	...	...	...	2	...	7	...		
July	1	...	...	2	...	...	1	1	...	...	1	...	3	3		
August	...	...	...	...	...	1	1	...	...	...	2	...	3	1		
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
October	...	...	...	...	...	...	...	...	...	...	1	...	1	...		
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
December	...	...	1	3	1	...	2	...	...	...	1	...	5	3		
Total	13	2	77	31	41	29	55	35	45	19	21	2	252	118		

## CAMPAIGN FOR THE DETECTION OF CHOLERA CARRIERS DURING THE CALENDAR YEAR 1922, CITY OF MANILA

Months	Stool specimens taken from												Percentage of positives		
	Direct contacts			Remote contacts			Food handlers			Dead bodies				Total	
	Positive		Negative	Positive		Negative	Positive		Negative	Positive		Negative		Positive	Negative
	N. A. V.	A. V.	N. A. V.	A. V.	N. A. V.	A. V.	N. A. V.	A. V.	N. A. V.	A. V.	N. A. V.	A. V.		N. A. V.	A. V.
January.....	61	1	1,510	8	9,549	21	1	2,833	77	8	330	271	18	14,222	1.99
February.....	5	1	275	11	5,071	.....	.....	2,805	.....	2	452	16	3	3,403	.25
March.....	.....	.....	99	1	1,559	2	.....	1,623	13	3	439	16	3	2,720	.69
April.....	.....	.....	89	1	447	.....	.....	1,141	7	1	394	8	3	2,071	.53
May.....	.....	.....	38	5	322	.....	.....	1,204	.....	.....	226	.....	5	1,790	.28
June.....	.....	.....	59	6	251	.....	1	310	.....	.....	222	.....	7	822	.84
July.....	.....	.....	204	2	111	1	1	311	3	3	155	4	2	76	.27
August.....	.....	.....	118	87	106	.....	.....	1,018	1	1	242	3	1	1,465	.....
September.....	.....	.....	137	.....	59	.....	.....	873	.....	.....	201	.....	1	1,317	.....
October.....	.....	.....	3	.....	44	.....	.....	1,941	.....	.....	183	.....	1	2,186	.....
November.....	.....	.....	7	.....	16	.....	.....	902	.....	.....	153	.....	.....	1,106	.....
December.....	.....	.....	19	1	1	3	343	185	7	1	37	1	1	563	1.40
Total.....	66	2	2,558	128	17,622	27	3	13,804	104	14	3,162	325	45	37,146	.99

NOTE: N. A. V. means Non-agglutinating Vibrio; A. V., Cholera agglutinating Vibrio.

**DIPHTHERIA CASES REPORTED DURING THE CALENDAR YEAR 1922,  
CITY OF MANILA**

Months	Health districts													
	No. 1		No. 2		No. 4		No. 5		No. 6		Provin- cial case		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
January.....	3	1	2	2	2	.....	1	2	1	.....	2	1	10	4
February.....	3	.....	1	.....	.....	.....	2	.....	.....	.....	1	.....	8	3
March.....	1	.....	3	2	.....	.....	.....	.....	.....	.....	1	.....	5	2
April.....	.....	1	1	1	.....	.....	.....	.....	.....	.....	1	.....	2	2
May.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
June.....	.....	.....	1	.....	1	.....	.....	.....	1	.....	.....	.....	3	.....
July.....	.....	.....	2	.....	.....	.....	3	2	1	.....	.....	.....	3	.....
August.....	2	.....	2	.....	.....	.....	.....	.....	2	1	1	2	1	2
September.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
October.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	1
November.....	1	.....	.....	.....	.....	.....	1	.....	1	1	3	.....	6	1
December.....	1	1	3	1	.....	.....	.....	.....	.....	2	2	.....	6	4
Total.....	11	3	14	6	3	.....	3	4	6	2	12	7	54	22

8 Diphtheria carriers; living, 8.



Pulmonary tuberculosis <sup>a</sup> .....	17	14	9	7	11	15	3	10	15	14	17	19	16	25	12	24	18	27	20	26	12	28	11	221	( <sup>b</sup> )158
Tuberculosis of other forms.....	3	3	3	3	1	1	2	2	2	2	4	4	4	3	3	4	4	4	.....	2	2	3	3	31	31
Total.....	30	22	27	22	22	44	28	30	27	44	30	44	28	36	27	45	15	42	24	44	27	41	20	64	299

<sup>a</sup> Including one foreign case; <sup>b</sup> All foreign cases; <sup>c</sup> Chinese brought by S. S. Training from Amoy, China; <sup>d</sup> Including 1, permanent residence unknown.  
<sup>e</sup> Only those reported. <sup>f</sup> Includes 3 whose permanent residences were unknown. <sup>g</sup> Includes acute military tuberculosis.

# REPORT OF BIOLOGICAL EXAMINATIONS OF DRINKING WATER USED IN RESTAURANTS, TIENDAS, ETC., FROM HEALTH STATION No. 1 CITY OF MANILA, DURING THE YEAR 1922

Months	Number of samples examined	Bacterial count			Positive for—					Total samples unfit for drinking	Per cent unfit for drinking
		Less than 100,000	100,000 and over	1,000,000 and over	Presumptive test	B. Coli	Amoeba	Flagellate	Ciliate		
January.....	27	24	3	.....	1	1	.....	.....	.....	1	3.70
February.....	24	22	2	.....	1	.....	.....	.....	.....	.....	.....
March.....	57	55	2	.....	7	1	.....	.....	.....	1	1.75
April.....	126	111	12	3	16	10	.....	.....	.....	13	10.31
May.....	23	20	2	1	9	3	.....	.....	.....	4	17.39
June.....	2	2	.....	.....	1	.....	.....	.....	.....	.....	.....
July.....	111	82	11	18	47	30	.....	.....	.....	48	43.24
August.....	30	21	9	.....	6	7	.....	.....	.....	7	23.33
September.....	51	49	.....	2	17	11	.....	.....	.....	13	25.49
October.....	77	74	1	2	21	15	.....	.....	.....	17	22.07
November.....	45	41	4	.....	21	20	.....	.....	.....	20	44.44
December.....	56	52	3	1	21	21	.....	.....	.....	22	39.28
Total.....	629	553	49	27	168	119	.....	.....	.....	146	23.21

<sup>1</sup> (1) (a) 100,000 bact. per c. c. or over, *suspicious*; (b) 1,000,000 bact. per c. c. or over, *unfit*; (2) Presumptive test positive, *suspicious*; (3) B. Coli positive, *unfit*.

**REPORT OF BIOLOGICAL EXAMINATIONS OF DRINKING WATER USED IN RESTAURANTS, TIENDAS, ETC., FROM HEALTH STATION No. 2  
CITY OF MANILA, DURING THE YEAR 1922**

Months	Number of samples examined	Bacterial count			Positive for—				Total samples unfit for drinking	Per cent unfit for drinking
		Less than 100,000	100,000 and over	1,000,000 and over	Presumptive test	B. Coli	Amoeba	Flagellate		
January.....	78	67	5	6	14	9			15	19.23
February.....	210	197	6	7	24	18			25	11.90
March.....	266	218	27	21	71	37			58	21.80
April.....	265	231	23	11	115	86			97	36.60
May.....	153	139	11	3	72	60			63	41.17
June.....	459	420	18	21	215	157			178	38.77
July.....	262	239	20	3	95	75			78	29.77
August.....	253	239	5	9	113	96			105	41.50
September.....	171	156	6	9	65	37			46	26.90
October.....	158	154	3	1	64	63			64	40.50
November.....	65	64	1		26	22			22	33.84
December.....										
Total.....	2,340	2,124	125	91	874	660			751	32.09

<sup>1</sup> (1) 100,000 bact. per c. c. or over, *suspicious*; (b) 1,000,000 bact. per c. c. or over, *unfit*; (2) Presumptive test positive, *suspicious*; (3) B. Coli positive, *unfit*.

**REPORT OF BIOLOGICAL EXAMINATIONS OF DRINKING WATER USED IN RESTAURANTS, TIENDAS, ETC., FROM HEALTH STATION No. 4  
CITY OF MANILA, DURING THE YEAR 1922**

Months	Number of samples examined	Bacterial count			Positive for—				Total samples unfit for drinking	Per cent unfit for drinking
		Less than 100,000	100,000 and over	1,000,000 and over	Presumptive test	B. Coli	Amoeba	Flagellate		
January.....	399	363	33	3	227	29			32	8.02
February.....	323	303	18	2	233	29			31	9.59
March.....	153	145	8		127	62			62	40.52
April.....	327	271	29	27	180	67			94	28.74
May.....	427	342	61	24	376	1			25	5.85
June.....	294	213	65	16	31	62			78	26.53
July.....	277	234	27	16	140	105			121	43.68
August.....	341	309	15	17	167	105			122	35.77
September.....	97	21	62	14	51	34			48	49.48
October.....	150	135	5	10	37	31			41	27.33

November.....	103	96	4	3	32	30	33	32.03
December.....	52	49	3	.....	13	11	11	21.15
Total.....	2,943	2,481	330	132	1,717	566	698	23.71

1 (1) (a) 100,000 bact. per c. c. or over, *suspicious*; (b) 1,000,000 bact. per c. c. or over, *unfit*; (2) Presumptive test positive, *suspicious*; (3) B. Coli positive, *unfit*.

# REPORT OF BIOLOGICAL EXAMINATIONS OF DRINKING WATER USED IN RESTAURANTS, TIENDAS, ETC., FROM HEALTH STATION No. 5, CITY OF MANILA DURING THE YEAR 1922

Months	Number of samples examined	Bacterial count			Positive for—				Total samples for drinking	Per cent unfit for drinking
		Less than 100,000	100,000 and over	1,000,000 and over	Presumptive test	B. Coli	Amœba	Flagellate		
January.....	421	324	92	5	15	12	.....	.....	17	4.03
February.....	406	345	44	17	14	11	.....	.....	28	6.89
March.....	185	168	13	4	11	8	.....	.....	12	6.48
April.....	170	132	17	21	23	8	.....	.....	29	17.05
May.....	164	129	20	15	43	21	.....	.....	36	21.95
June.....	321	227	65	29	76	56	.....	.....	85	26.47
July.....	199	133	35	30	44	31	.....	.....	61	30.65
August.....	125	103	12	10	15	12	.....	.....	22	17.60
September.....	128	110	4	14	28	19	.....	.....	33	25.78
October.....	131	110	14	7	24	17	.....	.....	24	18.32
November.....	142	127	15	.....	22	18	.....	.....	18	12.67
December.....	105	96	9	.....	12	6	.....	.....	6	5.71
Total.....	2,497	2,004	341	152	327	219	.....	.....	371	14.85

1 (1) (a) 100,000 bact. per c. c. or over, *suspicious*; (b) 1,000,000 bact. per c. c. or over, *unfit*; (2) Presumptive test positive, *suspicious*; (3) B. Coli positive, *unfit*.

REPORT OF BIOLOGICAL EXAMINATIONS OF DRINKING WATER USED IN RESTAURANTS, TIENDAS, ETC., FROM HEALTH STATION No. 6,  
CITY OF MANILA, DURING THE YEAR 1922

Months	Number of samples examined	Bacterial count				Positive for—				Total samples unfit for drinking	Per cent unfit for drinking
		Less than 100,000	100,000 and over	1,000,000 and over	Presumptive test	B. Coli	Ameba	Flagellate	Cyiate		
January.....	145	123	18	4	7	7	.....	.....	.....	11	7.58
February.....	98	86	10	.....	9	5	.....	.....	.....	5	5.20
March.....	108	56	52	.....	43	35	.....	.....	.....	35	32.40
April.....	116	103	13	.....	10	18	.....	.....	.....	18	15.51
May.....	121	98	14	.....	52	41	.....	.....	.....	50	41.32
June.....	60	54	5	.....	13	11	.....	.....	.....	12	20.00
July.....	92	81	11	.....	30	23	.....	.....	.....	23	25.00
August.....	122	116	7	.....	45	38	.....	.....	.....	38	31.14
September.....	129	124	6	.....	36	28	.....	.....	.....	28	21.70
October.....	135	117	8	.....	22	23	.....	.....	.....	23	17.05
November.....	135	116	19	.....	20	16	.....	.....	.....	16	11.86
December.....	109	95	14	.....	20	14	.....	.....	.....	14	12.84
Total.....	1,318	1,128	176	14	307	259	.....	.....	.....	273	20.71

<sup>1</sup> (1) (a) 100,000 bact. per c. c. or over, *suspicious*; (b) 1,000,000 bact. per c. c. or over, *unfit*; (2) Presumptive test positive, *suspicious*; (3) B. Coli positive, *unfit*.



## REPORT ON DISTRIBUTION OF ASSORTED SERA AND VACCINE

Sera and vaccine	Remaining at the beginning of year	Received during the year	Total to be accounted for	Issued	Remaining at the end of the year
Anti-diphtheric serum (units).....	647,000	1,449,000	2,996,000	1,564,000	532,000
Anti-dysenteric serum (ampoules).....	20	518	538	488	50
Anti-tetanic serum (units).....		4,584,000	4,584,000	4,584,000	
Cholera vaccine (c. c.).....	40,340	367,790	408,130	408,670	4,460
Dried vaccine virus (units).....		214,450	214,450	214,450	
Fresh vaccine virus (units).....	94,000	2,590,000	2,684,000	2,571,000	113,000
Gonococcus vaccine (ampoules).....		1,868	1,868	1,868	
Mixed typhoid and cholera vaccine (c. c.).....		593,355	593,355	591,575	1,780
Normal horse serum (ampoules).....		366	366	366	
Plague vaccine (ampoules).....		70	70	70	
Streptococcus vaccine (ampoules).....		6	6	6	
Typhoid and paratyphoid vaccine (c. c.).....	8,390	126,090	134,480	124,650	9,830

## AMOUNT OF VACCINE VIRUS DISTRIBUTED BY THE PHILIPPINE HEALTH SERVICE

	Units		Units
Amount on hand January 1, 1922....	94,000	Distributed as per itemized statement.....	2,571,000
Received from the Bureau of Science.....	2,590,000	Remaining on hand December 31, 1922.....	113,000
Total to be accounted for.....	2,684,000		

## PLACES AT WHICH VACCINE VIRUS WAS DISTRIBUTED

	Units		Units
<b>Provinces:</b>		<b>Provinces—Continued.</b>	
Abra.....	11,000	Mountain Province.....	31,100
Agusan.....	16,400	Nueva Ecija.....	157,500
Albay.....	145,500	Nueva Vizcaya.....	5,450
Antique.....	22,800	Occidental Negros.....	112,100
Bataan.....	16,300	Oriental Negros.....	225,100
Batanes.....	1,500	Palawan.....	8,000
Batangas.....	106,000	Pampanga.....	30,000
Bohol.....	37,300	Pangasinan.....	201,000
Bukidnon.....	1,000	Rizal.....	64,500
Bulacan.....	49,250	Romblon.....	4,400
Cagayan.....	23,200	Samar.....	51,500
Camarines Norte.....	5,000	Sorsogon.....	7,900
Camarines Sur.....	53,500	Surigao.....	10,200
Capiz.....	54,800	Tarlac.....	52,200
Cavite.....	25,000	Tayabas.....	62,400
Cebu.....	172,600	Zambales.....	9,600
Ilocos Norte.....	25,500	Zamboanga.....	40,600
Ilocos Sur.....	76,200		
Iloilo.....	78,000	Total.....	2,297,300
Isabela.....	11,500		
Laguna.....	28,300	<b>Manila:</b>	
La Union.....	32,600	Health Districts.....	321,450
Leyte.....	152,300	Other institutions.....	42,250
Marinduque.....	19,900		
Masbate.....	27,100	Total.....	273,700
Mindoro.....	29,000		
Misamis.....	2,200	Grand total.....	2,571,000

## AMOUNT OF CHOLERA VACCINE DISTRIBUTED BY THE PHILIPPINE HEALTH SERVICE

	Units		Units
Amount on hand January 1, 1922....	40,340	Distributed as per itemized statement.....	408,670
Received from the Bureau of Science.....	367,790	Remaining on hand December 31, 1922.....	4,460
Total to be accounted for.....	408,130		

## PLACES AT WHICH CHOLERA VACCINE WAS DISTRIBUTED

	Units		Units
<b>Provinces:</b>		<b>Provinces—Continued.</b>	2,400
Abra.....	1,920	Nueva Ecija.....	2,640
Albay.....	30,120	Nueva Vizcaya.....	820
Antique.....	5,100	Occidental Negros.....	1,370
Bataan.....	1,200	Oriental Negros.....	2,180
Batangas.....	25,420	Pampanga.....	7,030
Bohol.....	3,900	Pangasinan.....	6,390
Bulacan.....	16,350	Rizal.....	30,200
Cagayan.....	1,200	Romblon.....	900
Camarines Norte.....	1,200	Sorsogon.....	4,500
Camarines Sur.....	9,600	Tarlac.....	480
Capiz.....	14,580	Tayabas.....	2,640
Cavite.....	12,180	Zambales.....	13,800
Cebu.....	13,530		
Ilocos Norte.....	3,926	Total.....	246,770
Ilocos Sur.....	6,300		
Iloilo.....	900		
Laguna.....	11,540	<b>Manila:</b>	
La Union.....	5,700	Health Districts.....	147,430
Leyte.....	1,600	Other institutions.....	9,470
Marinduque.....	600		
Mindoro.....	2,500	Total.....	156,900
Misamis.....	3,700		
Mountain Province.....	1,000	Grand total.....	403,670

## SMALLPOX VACCINATIONS IN THE CITY OF MANILA

Health districts	Total vaccina- tions	Total inspections	Positive	Negative
No. 1, Intramuros.....	10,741	2,824	2,194	630
No. 2, Meisic.....	35,234	5,722	4,159	1,563
No. 4, Sampaloc.....	21,890	3,467	2,722	745
No. 5, Tondo.....	17,523	6,377	4,738	1,639
No. 6, Paco.....	26,261	3,539	2,454	1,075
Total.....	111,649	21,919	16,267	5,652



**ANNUAL CONSOLIDATION OF VACCINATION AND INSPECTION AGAINST SMALLPOX, SUPPLIES VACCINE VIRUS, AND CASES AND DEATHS  
OF SMALLPOX IN THE PROVINCES**

Provinces	Number of vaccinations	Number of inspections	Inspections positive	Inspections negative	Smallpox		Varioloid	
					Cases	Deaths	Cases	Deaths
Abra.....	12,818	11,093	6,676	4,357				
Abay.....	90,097	62,268	40,312	21,956				
Antique.....	22,066	19,819	12,322	7,497			1	
Bataan.....	14,279	14,060	10,375	3,185				
Batanes.....	926	831	220	611				
Batanga.....	84,806	49,471	25,175	24,296				
Bohol.....	50,495	41,243	26,732	14,511			61	
Bulacan.....	38,099	26,837	19,377	7,460				
Cagayan.....	23,772	16,757	11,605	5,152				
Canarines Norte	3,258	2,958	2,096	862				
Canarines Sur	43,193	30,697	21,771	8,926			3	
Capiz.....	50,380	45,334	32,662	12,722	1	1		
Catanduanes.....	59,602	44,683	28,532	16,151				
Cavite.....	20,686	19,930	13,090	6,840			63	
Cebu.....	131,485	96,642	53,882	42,760				
Culion.....	1,257	1,247	610	637				
Ilocos Norte.....	2,379	23,371	10,147	13,224				
Ilocos Sur.....	75,309	55,797	36,334	19,463				
Iloilo.....	76,982	44,791	34,013	10,778				
Isabela.....	12,724	9,987	3,405	6,582				
Laguna.....	25,536	19,345	12,047	7,298				
La Union.....	29,830	21,291	9,113	12,178				
Leyte.....	134,626	80,646	60,108	20,538				
Marinduque.....	17,954	13,135	8,096	5,039				
Maabate.....	12,525	3,318	1,625	1,693	3		2	
Mindoro.....	14,313	11,166	6,315	4,851			15	
Mountain Province	25,475	15,537	10,206	5,331			3	
Nueva Ecija.....	160,830	116,657	68,368	48,289	1	1		
Nueva Vizcaya.....	4,384	4,154	2,980	1,174				
Occidental Negros.....	125,078	34,618	17,688	16,930				
Oriental Negros.....	7,125	79,397	47,962	31,435		10	6	1
Palawan.....	7,125	6,069	2,968	3,101				
Pampanga.....	24,099	15,555	10,344	4,711				
Pangasinan.....	188,663	170,253	91,155	79,098				
Rizal.....	46,006	33,635	19,862	13,773				
Romblon.....	19,183	14,529	8,750	5,779				
Samar.....	38,482	16,822	8,573	8,249			7	
Sorsogon.....	15,264	13,797	8,857	4,940	6		3	3
Tarlac.....	58,579	34,040	21,303	12,737				

Tayabas.....	52,004	46,772	30,976	15,796	8	
Zambales.....	13,008	12,260	7,246	5,014		
<b>Total.....</b>	<b>1,900,704</b>	<b>1,384,910</b>	<b>846,582</b>	<b>538,378</b>	<b>126</b>	<b>183</b>
<b>Mindanao and Sulu:</b>						
Agusan.....	8,359	6,062	2,567	3,495		
Bukidnon.....	3,331	2,411	1,280	1,131		
Cotabato.....	18,322	9,939	2,178	7,761	14	7
Davao.....	15,456	11,283	7,082	4,201		
Lanao.....	14,067	7,076	4,899	2,177		
Misamis.....	12,784	6,289	3,382	2,907		
Surigao.....	18,123	15,248	9,213	6,035		
Sulu.....	6,501	5,389	3,404	1,935		
Zamboanga.....	10,966	8,628	5,005	3,623		
<b>Total.....</b>	<b>108,449</b>	<b>72,590</b>	<b>39,134</b>	<b>33,456</b>	<b>14</b>	<b>7</b>
<b>Manila.....</b>	<b>111,649</b>	<b>21,929</b>	<b>16,277</b>	<b>5,652</b>		
<b>Grand total.....</b>	<b>2,120,802</b>	<b>1,479,429</b>	<b>901,943</b>	<b>577,486</b>	<b>140</b>	<b>183</b>

**VACCINATIONS PERFORMED BY VACCINATING PARTIES INCLUDED IN THE  
FOREGOING TABLE**

Vaccinating parties	Number of vaccinations	Number of inspections	Inspections positive	Inspections negative	Vaccine sent	Vaccine used
Party No. 1.....	119,335	87,027	45,885	41,142	140,800	132,200
Party No. 2.....	113,195	79,289	26,351	52,938	129,000	118,700
Party No. 3.....	88,024	89,656	55,781	33,875	84,800	83,000
Party No. 4.....	179,111	117,584	73,509	44,075	193,500	183,000
Party No. 5.....	89,900	56,536	43,352	13,184	89,500	89,000
Party No. 6.....	99,640	69,806	44,550	25,250	106,000	95,000
Total.....	689,205	499,892	289,428	210,464	742,600	700,900

**CONSOLIDATED CHOLERA VACCINATIONS REPORTED IN THE PROVINCES SINCE  
JANUARY, 1922\***

Province	Number of vaccinations		
	Adults	Children	Total
Abra.....	438	1,652	2,090
Albay.....	24,562	12,473	37,035
Antique.....	3,750	2,851	6,601
Bataan.....	914	475	1,389
Batangas.....	11,150	9,739	20,889
Bohol.....	2,134	1,186	3,320
Bulacan.....	8,744	6,717	15,461
Cagayan.....	6,698	5,779	12,477
Camarines Norte.....	1,429	214	1,643
Capiz.....	8,056	5,308	13,364
Catanduanes.....	654	430	1,084
Cavite.....	7,172	4,213	11,385
Cebu.....	5,829	2,829	8,658
Cotabato *.....	708	164	872
Davao *.....	159	61	220
Ilocos Norte.....	403	666	1,069
Ilocos Sur.....	3,736	2,722	6,458
Iloilo.....	972	1,178	2,150
Laguna.....	5,668	7,920	13,588
La Union.....	3,854	2,564	6,418
Leyte.....	1,356	796	2,152
Marinduque.....	1,948	2,475	4,423
Mindoro.....	4,354	1,493	5,847
Misamis *.....	1,422	731	2,153
Nueva Ecija.....	1,520	1,476	2,996
Nueva Vizcaya.....	676	949	1,625
Oriental Negros.....	5,257	7,557	12,814
Pampanga.....	4,584	3,847	8,431
Pangasinan.....	6,288	4,986	11,274
Rizal.....	19,386	11,225	31,111
Romblon.....	824	206	830
Sorsogon.....	2,742	2,107	4,849
Sulu *.....	913	159	1,072
Tarlac.....	654	355	1,009
Tayabas.....	2,295	318	2,613
Zambales.....	2,704	2,393	5,097
Zamboanga *.....	1,230	1,121	2,351
Total.....	<sup>b</sup> 151,051 <sup>c</sup> 155,483	<sup>b</sup> 109,099 <sup>c</sup> 111,335	<sup>b</sup> 260,150 <sup>c</sup> 266,818

\* Compilation of reports received since January.

Other reports not yet received.

<sup>b</sup> Totals for the Division of Provincial Sanitation proper.

<sup>c</sup> Totals including the five provinces marked \* which belonged to the Division of Mindanao and Sulu.

**CONSOLIDATED TYPHOID VACCINATIONS REPORTED IN THE PROVINCES SINCE  
JANUARY 1922<sup>a</sup>**

Province	Number of vaccinations		
	Adults	Children	Total
Abra.....	233	132	365
Batangas.....	79	.....	79 <sup>c</sup>
Bulacan.....	1,953	392	2,345
Capiz.....	667	258	925
Cavite.....	36	11	47
Davao.....	3	.....	3
Ilocos Sur.....	2,242	1,459	3,701
Isabela.....	34	.....	34
Laguna.....	3,183	2,386	5,569
La Union.....	408	110	518
Pampanga.....	3,334	3,282	6,616
Pangasinan.....	6,754	2,922	9,676
Rizal.....	102	22	124
Zambales.....	3,617	2,390	6,007
Total.....	<sup>b</sup> 22,642 <sup>c</sup> 22,645	13,364	<sup>b</sup> 36,006 <sup>c</sup> 36,009

<sup>a</sup> Compilation of reports received since January.<sup>b</sup> Total excluding Davao.<sup>c</sup> Total including Davao.

Other reports not yet received.

**CONSOLIDATED MIXED (TYPHOID AND CHOLERA) VACCINATIONS REPORTED IN  
THE PROVINCES SINCE JANUARY, 1922<sup>a</sup>**

Province	Number of vaccinations		
	Adults	Children	Total
Abra.....	759	1,617	2,376
Antique.....	2,411	3,917	6,328
Bataan.....	615	472	1,087
Batanes.....	98	14	112
Batangas.....	9,197	8,299	17,496
Bohol.....	683	159	842
Bulacan.....	2,711	3,053	5,764
Cagayan.....	2,663	1,769	4,432
Camarines Norte.....	829	335	1,164
Capiz.....	249	106	355
Cavite.....	4,453	3,003	7,456
Cebu.....	3,640	1,424	5,064
Cotabato *.....	2,162	722	2,884
Davao *.....	1,176	367	1,543
Ilocos Norte.....	3,544	3,942	12,486
Ilocos Sur.....	11,994	4,489	16,483
Iloilo.....	13,878	10,222	24,100
Isabela.....	567	182	749
Jolo *.....	1,692	1,745	3,437
Laguna.....	1,345	1,192	2,537
Lanao *.....	4,130	3,539	7,669
La Union.....	8,612	5,205	13,817
Leyte.....	2,648	2,418	5,066
Marinduque.....	1,396	2,784	4,180
Masbate.....	661	252	913
Misamis *.....	1,780	3,121	4,901
Nueva Ecija.....	2,476	2,336	4,812
Nueva Vizcaya.....	954	791	1,745
Oriental Negros.....	1,282	2,230	3,518
Pampanga.....	8,521	7,637	16,152
Pangasinan.....	8,348	4,185	12,533
Rizal.....	10,383	3,807	14,190
Romblon.....	896	761	1,657
Samar.....	4,091	424	4,515
Sorsogon.....	1,807	1,053	2,869
Surigao *.....	1,172	877	2,040
Tarlac.....	2,928	1,762	4,690
Tayabas.....	6,285	1,598	7,887
Zambales.....	3,088	2,584	5,623
Zamboanga *.....	2,380	2,841	5,221
Total.....	<sup>b</sup> 129,012 <sup>c</sup> 143,504	<sup>b</sup> 84,022 <sup>c</sup> 97,234	<sup>b</sup> 213,034 <sup>c</sup> 240,738

<sup>a</sup> Compilation of reports received since January.<sup>b</sup> Totals for the Division of Provincial Sanitation proper.<sup>c</sup> Totals including seven provinces marked with \* belonging to the Division of Mindanao and Sulu.

Other reports not yet received.

**REPORTS RECEIVED OF BLIND PERSONS LIVING IN THE VARIOUS PROVINCES  
OF THE PHILIPPINE ISLANDS**

Provinces	Race	Children		Single		Married		Wid- owed		Total		Grand total
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Abra.....	Filipino..			11	6	14	13	2	10	27	29	56
Agusan.....	do.....		1			1				1	1	2
Albay.....	do.....	4	3	53	29	29	8	5	11	91	51	142
Antique.....	do.....											
Bataan.....	do.....	3	1	15	6	4	3	3	1	25	11	36
Batanes.....	do.....					2	5	7	5	11	17	28
Batangas.....	do.....	1	2	21	17	21	10	9	8	52	37	89
Bohol.....	do.....	13	3	85	59	58	25	4	13	160	100	260
Bukidnon.....	do.....		1			1		1		2	1	3
Bulacan.....	do.....	2	1	32	31	17	3	11	3	62	38	100
Cagayan.....	do.....			17	12	20	6	10	4	49	22	71
Camarines Norte.....	do.....	5	4	4	6	11	1	8	8	28	19	47
Camarines Sur.....	do.....	6	7	37	19	36	10	8	7	87	43	130
Capiz.....	do.....	2	2	34	28	37	21	16	37	89	88	177
Catanduanes.....	do.....	3	3	17	11	11	7	2	4	33	25	58
Cavite.....	do.....	15	3	17	17	11	1	1	5	44	26	70
Cebu.....	do.....	24	9	89	65	91	37	32	37	236	148	384
Cotabato.....	do.....	1				1			1	2	1	3
Davao.....	do.....		1	4	1	2	3	1	3	7	8	15
Ilocos Norte.....	do.....	2	3	8	19	27	15	11	23	48	60	108
Ilocos Sur.....	do.....	5	3	34	35	25	19	8	16	72	73	145
Iloilo.....	do.....			45	26	44	12	17	38	111	76	187
Isabela.....	do.....					2	3	1	1	3	4	7
Laguna.....	do.....	8	4	19	15	13	10	2	10	42	39	81
Lanao.....	do.....								2		2	2
La Union.....	do.....	1		19	11	9	5	6	7	35	23	58
Leyte.....	do.....	25	8	98	59	66	24	19	18	208	109	317
Marinduque.....	do.....	1		4	2	5		1		11	2	13
Masbate.....	do.....					1				1		1
Mindoro.....	do.....											1
Misamis.....	do.....	7	6	40	14	29	14	11	8	87	42	129
Nueva Ecija.....	do.....		2	6	5	1	4	5		12	11	23
Nueva Vizcaya.....	do.....	1		4	2	13		2	1	20	3	23
Occidental Negros.....	do.....	14	3	26	20	16	9	15	16	71	48	119
Oriental Negros.....	do.....	4	2	38	19	19	5	12	8	73	34	107
Palawan.....	do.....			3	3			1	1	4	4	8
Pampanga.....	do.....	2	1	28	20	19	9	3	14	52	44	96
Pangasinan.....	do.....	12	14	68	28	47	24	18	25	145	91	236
Rizal.....	do.....	1	2	16	16	18	15	5	7	40	40	80
Romblon.....	do.....	3	1	14	12	18	2	6	2	41	17	58
Samar.....	do.....	8	8	87	51	47	23	10	15	152	97	249
Sorsogon.....	do.....	4	2	17	11	8	2			29	15	44
Sulu.....	(1)											
Surigao.....	Filipino..	4	2	21	4	10	1	3	2	38	9	47
Tarlac.....	do.....	13	2	14	10	20	9	2	6	49	27	76
Tayabas.....	do.....	5	4	23	20	19	7	6	7	53	38	91
Zambales.....	do.....	2	1	8	7	7	5	7	7	24	20	44
Zamboanga.....	do.....	2		3		2		1		8		8
<b>Total.....</b>		<b>210</b>	<b>110</b>	<b>1,080</b>	<b>718</b>	<b>855</b>	<b>372</b>	<b>291</b>	<b>393</b>	<b>2,436</b>	<b>1,593</b>	<b>4,029</b>

<sup>1</sup> No record



**REPORTS RECEIVED OF INSANE PERSONS LIVING IN THE VARIOUS PROVINCES  
OF THE PHILIPPINE ISLANDS**

Provinces	Race	Children		Single		Married		Wid- owed		Total		Grand total
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Abra.....	Filipino..	1		14	15	8	5	3	4	26	24	50
Agusan.....	do.			3						3		3
Albay.....	do.		1	10	14	5	8	2	6	17	29	46
Antique.....	do.											
Bataan.....	do.			8	5	3	1	3	4	14	10	24
Batanes.....	do.			7	11	1	1			8	12	20
Batangas.....	do.	2		40	18	13	6	3	4	58	28	86
Bohol.....	do.	2		177	109	28	16	6	6	213	131	344
Bukidnon.....	do.			1	2					2	1	3
Bulacan.....	do.	22	41	67	46	18	42	10	17	117	146	263
Cagayan.....	do.	1		15	4	4	10	2	2	22	16	38
Camarines Norte.....	do.			11	4	2			1	13	5	18
Camarines Sur.....	do.	2	1	18	24	13	9	5	4	38	38	76
Capiz.....	do.			27	22	14	22	6	20	47	64	111
Catanduanes.....	do.			20	12	6	3	1		37	15	42
Cavite.....	do.	4		13	4	6	3	4	3	27	10	37
Cebu.....	do.	10	9	155	83	64	23	11	13	240	130	370
Cotabato.....	do.			2						2		2
Davao.....	do.			5		7	1		3	12	4	16
Ilocos Norte.....	do.	2	1	40	26	20	9		2	62	38	100
Ilocos Sur.....	do.			54	33	24	14	8	6	86	53	139
Iloilo.....	do.	2		51	35	17	25	8	10	78	70	148
Isabela.....	do.						1				1	1
Laguna.....	do.			14	9	10	9	5	9	29	27	56
Lanao.....	do.			2						2		2
La Union.....	do.			20	13	7	6	3	6	30	25	55
Leyte.....	do.	3	1	115	48	25	19	9	9	152	77	229
Marinduque.....	do.			1	1	4	1		1	5	3	8
Masbate.....	do.											
Mindoro.....	do.				1			1		1	1	2
Misamis.....	do.	3		61	29	15	5	8	7	87	41	128
Nueva Ecija.....	do.			2	1	2	1		1	4	3	7
Nueva Vizcaya.....	do.			5	3	5	1		2	10	6	16
Occidental Negros.....	do.			31	11	9	8	6	8	46	27	73
Oriental Negros.....	do.			68	32	12	6	6	2	86	40	126
Palawan.....	do.			4	2		1			4	3	7
Pampanga.....	do.	1		10	10	8	9		4	19	23	42
Pangasinan.....	do.	4	2	47	29	49	28	8	16	108	75	183
Rizal.....	do.	3	2	9	8	8	10	2	4	22	24	46
Romblon.....	do.			5	12	5	3	1		11	15	26
Samar.....	do.	6	4	64	30	27	14	3	7	100	55	155
San Lazaro Hospital.....	(1)	1	1	168	37	147	78	17	32	333	148	485
Sorsogon.....	Filipino..			9	4	2		2	3	13	7	20
Sulu.....	(2)											
Surigao.....	Filipino..			6	2	6	5	1	2	13	9	22
Tarlac.....	do.			6	2	5	2		1	11	5	16
Tayabas.....	do.	1		72	50	18	18		6	91	74	165
Zambales.....	do.		1	9	5	3	6		1	12	13	25
Zamboanga.....	do.			3	4		1		1	3	6	9
Total.....		70	64	1,468	809	622	432	144	227	2,304	1,532	3,840

<sup>1</sup> Americans, 4; Europeans, 10; Filipinos, 465; Chinese, 1; Others, 5. Four females, social condition unknown, included in the total.

<sup>2</sup> No record.

# MARRIAGES IN THE PROVINCES FOR THE CALENDAR YEAR 1922

Province	Nationality					Single males married			Widowed males married			Divorced males married			Nationality of brides					Relationship					
	Total marriages	Americans	Filipinos	Europeans	Chinese	Other Asiatics	Other nationalities	Females			Females			Females			Americans	Filipinos	Europeans		Chinese	Other nationalities	Other Asiatics	Blood	Affinity
								Females			Females			Females											
								Single	Widowed	Divorce	Single	Widowed	Divorced	Single	Widowed	Divorced									
Abra...	268		268					215	2		30	20					268								
Albay...	1,466		1,466		1			1,307	2		31	126					1,466								
Antique...	953		952				1	824	4		60	65					953								
Bataan...	450		450					354	10		42	44					450								
Batanes...	56		56					45	3		6	2					56								
Batangas...	2,610		2,610					2,138	138		209	125					2,610								
Bohol...	2,819		2,819					2,520	65		137	97					2,819								
Bulacan...	2,424	1	2,424					1,925	104		228	168				1	2,424								
Cagayan...	1,596		1,591	2	2	1		1,401	38		100	57					1,596								
Camagines Norte...	324		323					261	2		26	35					324								
Camarines Sur...	1,585		1,572	2	11			1,255	91		149	90					1,583		2						
Capiz...	1,435		1,435					1,096	67		144	128					1,435								
Catanduanes...	354		354					335			9	10					354								
Cavite...	1,357	12	1,343		1	1		1,184	1		18	154				6	1,349		1	1					
Cebu...	4,800	1	4,793	6				4,343	122		136	199					4,796		3						
Ilocos Norte...	1,271		1,271					1,123	25		37	86					1,271								
Ilocos Sur...	1,300		1,300					685	99		475	41					1,300								
Iloilo...	2,924	1	2,918	2	3			2,671	35		97	121				1	2,919		2	2					
Isabela...	725		719	2	4			638	9		28	47		3			725								
Laguna...	1,864	4	1,859		1			1,464	49		183	167			1	1	1,863								
La Union...	893		890	2	2	1		782	10		51	50					893								
LeYTE...	3,222		3,222					1,424	409		845	544				3	3,222								
Marinduque...	508		508					417	14		58	19					508								
Masbate...	439	1	437			1		407	1		29	2					439								
Mindoro...	536		536					356	37		89	54					536								
Mindoro...	2,094		2,094					1,806	53		135	100					2,094								
Nueva Vizcaya...	222		222					175	15		22	10					222								
Ocidental Negros...	2,873	2	2,866	1	2	2		2,559	126		118	70					2,873								
Oriental Negros...	2,205	1	2,196	7	1			1,849	284		36	36				1	2,196		7	1					
Palawan...																									
Pampanga...	2,350	4	2,346					1,953	62		191	144					2,350								
Pangasinan...	4,643		4,641	1	1			3,838	149		361	267	22			6	4,643								
Rizal...	2,916	9	2,298	3	6			1,941	38		121	216					2,902		1	4					
Romblon...	582		581					459	23		66	34					582								

Samar.....	2,517	1	2,505	11	2,196	.....	123	198	.....	2,517	.....											
Sorsogon.....	892	.....	882	.....	1,772	50	43	27	.....	892	.....											
Tarlac.....	1,427	.....	1,426	1	1,275	132	11	9	.....	1,427	.....											
Tayabas.....	2,344	.....	2,344	.....	1,938	264	85	57	.....	2,344	.....											
Zambales.....	622	1	620	.....	505	11	38	68	.....	621	.....											
Total.....	61,267	38	61,146	20	56	6	1	50,436	2,544	.....	4,567	3,687	22	3	7	1	21	61,222	10	13	1	.....

**GENERAL RETURN OF BIRTHS AND DEATHS IN THE PHILIPPINE ISLANDS DURING THE CALENDAR YEAR 1922**

Province	Population <sup>1</sup>	Number of births	Annual birth rate per 1,000	Deaths									
				Under 30 days	30 days to under 1 year	1 year to under 2 years	2 years to under 4 years	4 years to under 9 years	9 years to under 15 years	15 years to under 20 years	20 years to under 25 years	25 years to under 30 years	30 years to under 35 years
Abra.....	77,344	2,327	30.09	84	104	56	59	44	22	24	.....	.....	.....
Albay.....	271,318	9,399	34.64	516	670	549	723	401	204	217	.....	.....	.....
Antique.....	159,604	5,569	34.89	195	335	343	355	173	56	59	.....	.....	.....
Bataan.....	60,893	2,155	35.39	235	348	128	122	13	26	58	.....	.....	.....
Batanes.....	8,214	256	31.17	33	28	25	70	33	190	293	.....	.....	.....
Batangas.....	358,429	14,713	41.05	1,171	1,388	555	702	359	190	293	.....	.....	.....
Bohol.....	378,097	16,357	40.62	812	1,325	395	966	483	168	170	.....	.....	.....
Bulacan.....	254,939	9,887	38.78	883	1,253	428	563	184	113	202	.....	.....	.....
Cagayan.....	197,620	8,959	45.33	626	973	1,021	1,111	462	150	178	.....	.....	.....
Camarines Norte.....	54,595	2,334	42.75	163	854	1,021	718	339	188	247	.....	.....	.....
Camarines Sur.....	223,163	9,305	41.70	128	552	788	718	238	157	242	.....	.....	.....
Capiz.....	306,357	9,641	31.47	606	140	112	124	136	70	70	.....	.....	.....
Catanduanes.....	170,243	2,264	32.23	580	889	374	367	147	107	107	.....	.....	.....
Cavite.....	162,345	5,862	36.11	1,362	2,068	1,120	1,433	823	438	415	.....	.....	.....
Cebu.....	899,571	35,562	39.53	1,862	4,451	1,570	1,936	442	142	158	.....	.....	.....
Ilocos Norte.....	228,001	7,332	32.13	496	521	383	397	233	124	188	.....	.....	.....
Ilocos Sur.....	224,036	9,378	42.03	989	1,558	1,019	1,062	545	279	319	.....	.....	.....
Iloilo.....	523,426	20,432	39.03	989	1,558	1,019	1,062	545	279	319	.....	.....	.....
Isabela.....	208,222	7,388	35.96	751	1,166	414	363	185	111	146	.....	.....	.....
Laguna.....	164,459	6,813	41.41	437	1,114	298	336	129	95	97	.....	.....	.....
La Union.....	64,116	2,229	34.51	696	1,822	1,410	1,639	760	621	621	.....	.....	.....
Leyte.....	55,136	2,229	40.07	118	253	119	94	79	26	38	.....	.....	.....
Marinduque.....	72,783	1,522	20.67	41	149	51	63	29	16	30	.....	.....	.....
Masbate.....	72,082	2,378	33.07	155	281	125	167	98	57	77	.....	.....	.....
Mindoro.....	247,643	8,335	33.66	776	1,206	650	435	231	121	213	.....	.....	.....
Nueva Ecija.....	316,538	11,438	40.13	83	178	61	97	76	33	45	.....	.....	.....
Nueva Vizcaya.....	136,749	13,398	33.40	813	1,181	892	1,323	664	184	349	.....	.....	.....
Occidental Negros.....	286,225	8,217	28.51	488	923	713	692	429	129	151	.....	.....	.....
Palawan.....	265,106	11,398	42.99	1,074	1,572	543	285	191	105	200	.....	.....	.....

<sup>1</sup> Estimated as of July 1st.

**GENERAL RETURN OF BIRTHS AND DEATHS IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS DURING THE CALENDAR YEAR 1922—Continued**

Province	Population <sup>1</sup>	Number of births	Annual birth rate per 1,000	Deaths							
				Under 30 days	30 days to 1 year	1 year to 2 years	2 years to 4 years	4 years to 5 years	5 years to 10 years	10 years to 15 years	15 years and over
Pangasinan.....	595,128	26,527	44.57	2,284	2,037	1,486	1,766	754	302	413	
Ria.....	247,792	8,509	34.34	1,767	1,265	1,487	1,409	196	79	118	
Romblon.....	47,211	2,994	37.11	1,077	1,476	1,112	1,031	65	21	29	
Samar.....	404,623	14,202	35.10	474	1,244	551	515	504	341	241	
Sorogon.....	191,253	6,380	33.36	319	1,507	371	337	239	164	147	
Tarlac.....	180,041	8,028	34.80	712	739	368	366	196	90	126	
Tayabas.....	225,046	8,967	39.84	613	1,186	370	363	228	126	181	
Zambales.....	87,089	3,106	35.67	192	220	223	266	109	35	47	
Total and average.....	9,055,940	338,540	37.38	21,366	30,580	17,694	19,414	10,700	5,306	6,324	

<sup>1</sup> Estimated as of July 1st.

**GENERAL RETURN OF BIRTHS AND DEATHS IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS DURING THE CALENDAR YEAR 1922**

Province	Deaths										
	20 years to 29 years	30 years to 39 years	40 years to 49 years	50 years to 59 years	60 years to 69 years	70 years to 79 years	80 years to 89 years	90 years to 99 years	10 years and over	Age unknown	Number of deaths
Abra.....	84	55	64	57	69	31	27	30	17	2	829
Albay.....	246	283	349	270	233	191	155	90	43	4	5,144
Antique.....	156	209	178	149	155	118	106	65	23	4	2,681
Bataan.....	114	132	109	95	85	65	48	19	14		1,673
Batanes.....	10	7	11	12	20	11	9	2			224
Batangas.....	461	418	466	405	391	330	278	227	70	7	7,694
Bohol.....	418	356	311	268	357	302	313	145	93		6,862
Bulacan.....	437	400	439	387	352	235	253	148	60	2	6,739
Cagayan.....	269	353	262	256	207	167	125	49	42	8	5,155
Canaries Norte.....	133	61	74	78	68	34	35	20	13		1,470
Canaries Sur.....	381	343	347	297	273	173	193	72	38	7	5,674
Canas.....	385	492	408	342	281	225	207	82	36	6	4,861
Capiz.....	52	88	65	70	52	59	46	22	19		1,268
Cavite.....	232	229	233	269	188	142	148	40	293		4,163
Cebu.....	590	619	538	741	763	709	559	474	1,997		15,778

Ilocos Norte.....	218	205	274	204	256	225	143	70	30	.....	4,766
Ilocos Sur.....	204	176	207	196	187	160	173	84	102	95	3,925
Iloilo.....	549	632	566	466	403	368	290	163	66	26	9,301
Isabela.....	141	142	148	140	114	74	39	11	19	17	2,105
Laguna.....	362	380	336	271	281	216	182	100	47	.....	5,311
La Union.....	162	183	185	148	142	142	132	56	39	113	3,107
Leyte.....	523	488	490	407	336	225	178	160	104	391	10,368
Marinduque.....	105	123	90	98	62	49	35	13	14	4	1,320
Masbate.....	45	43	37	33	26	16	20	7	7	2	584
Misamis.....	116	114	107	88	46	34	25	19	11	2	1,462
Mindoro.....	373	304	285	244	194	157	117	88	85	7	5,546
Nueva Ecija.....	66	22	62	58	38	41	23	14	13	3	971
Nueva Vizcaya.....	527	522	526	382	415	284	249	129	88	18	8,546
Occidental Negros.....	400	379	334	301	288	192	158	73	45	1	5,696
Oriental Negros.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Palawan.....	225	247	371	367	357	341	203	228	123	53	6,485
Pampanga.....	796	730	727	640	532	449	409	189	190	18	13,722
Pangasinan.....	317	380	333	320	289	237	226	185	117	50	5,769
Rizal.....	92	84	93	84	60	50	41	20	5	2	1,144
Romblon.....	263	599	383	375	317	186	116	56	45	49	570
Samar.....	173	172	230	217	229	217	163	118	61	23	3,747
Sorsogon.....	225	251	232	173	135	113	86	73	57	.....	3,922
Tarlac.....	457	391	414	332	306	197	146	70	57	6	5,433
Tayabas.....	103	132	110	94	65	45	39	19	13	1	1,713
Zambales.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total and average 1 .....	10,410	10,804	10,696	9,274	8,572	6,806	5,605	3,449	2,142	3,363	182,405

1 Data from Mountain Province and Palawan not included since reports therefrom not yet available.

Note.—Eight transient deaths of Cavite, not included.

## GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) FOR 1922

Causes of death	Abra	Albay	Antique	Bataan	Batanes	Batangas
Typhoid fever.....	15	39	32	55		69
Malaria.....	191	729	211	220	28	1,315
Malarial cachexia.....	2	34	5	1		48
Smallpox.....						
Measles.....		35	5	12		11
Scarlet fever.....						
Whooping cough.....	5	21	70	8		6
Diphtheria and croup.....	2					1
Influenza.....	2	62	20	103	15	21
Asiatic cholera.....						15
Dysentery.....		198	96	40	9	142
Leprosy.....						1
Erysipelas.....	1	13	8	6		13
Anthrax.....			1	1		5
Rabies.....		3				
Pellagra.....						
Beriberi.....	7	154	127	240	5	1,060
Tuberculosis of the lungs.....	152	602	581	239	26	818
Tuberculosis of all forms.....	18	30	48	7	8	51
Cancer and other malignant tumors.....	10	13	23	11		44
Meningitis, cerebrospinal epidemic.....		1				9
Cerebral hemorrhage, apoplexy.....	5	25	10	4		46
Convulsions of infants under 5 years.....	77	882	73	142	50	477
Acute bronchitis.....	58	433	91	79	3	397
Diarrhea and enteritis:						
Under 2 years.....	15	50	85	20	2	166
Two years and over.....	2	66	89	7	3	149
Diseases of the puerperal state.....	15	80	48	21		129
Violent deaths:						
Suicide.....	7	2		5		16
Not suicide.....	11	49	105	10	1	54
Homicide.....	1	1				12
All other causes of death.....	233	1,621	953	440	74	2,619
<b>Total.....</b>	<b>829</b>	<b>5,149</b>	<b>2,681</b>	<b>1,671</b>	<b>224</b>	<b>7,694</b>
Number of males.....	453	2,599	1,360	939	113	4,005
Number of females.....	376	2,550	1,321	732	111	3,689
Annual death rate per 1,000.....	10.72	18.98	16.80	27.44	27.27	21.47
<i>Classified report of all deaths occurring</i>						
Males:						
Married.....	141	301	319	233	23	935
Widowed.....	52	421	153	92	14	319
Divorced.....				1		
Single.....	30	343	84	81	8	309
Boys.....	210	1,534	803	532	68	2,441
Condition not stated.....	20		1			1
Females:						
Married.....	101	243	327	170	20	882
Widowed.....	59	414	240	120	17	620
Divorced.....	2		1	3		
Single.....	32	370	98	37	12	281
Girls.....	159	1,523	655	400	62	1,904
Condition not stated.....	23			2		2

Causes of death	Bohol	Bulacan	Cagayan	Camari- nes Norte	Camari- nes Sur	Capiz
Typhoid fever.....	6	113	29	11	40	88
Malaria.....	280	240	1,390	205	942	640
Malarial cachexia.....	76	17	61	1	41	1
Smallpox.....						1
Measles.....	11		99	1	21	16
Scarlet fever.....				1		2
Whooping cough.....	235	6	6	1	134	97
Diphtheria and croup.....	2	3	1		1	5
Influenza.....	56	11	1	122	236	170
Asiatic cholera.....		6	3			
Dysentery.....	149	65	273	120	638	198
Leprosy.....		1	2		2	1
Erysipelas.....	7	28	3	1	14	27
Anthrax.....	38	4	3	2	8	3
Rabies.....			4	8	8	
Pellagra.....					1	3
Beriberi.....	238	1,105	260	87	340	323

## GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) FOR 1922—Continued

Causes	Bohol	Bulacan	Cagayan	Camari- nes Norte	Camari- nes Sur	Capiz
Tuberculosis of the lungs.....	984	1,101	469	221	792	775
Tuberculosis of all forms.....	167	54	45	7	74	58
Cancer and other malignant tumors.....	17	40	11	6	17	8
Meningitis, cerebrospinal epidemic.....	.....	7	.....	2	.....	8
Cerebral hemorrhage, apoplexy.....	13	58	12	9	12	9
Convulsions of infants under 5 years.....	326	624	321	43	544	229
Acute bronchitis.....	493	425	255	199	205	182
Diarrhea and enteritis:						
Under 2 years.....	157	79	95	7	146	131
Two years and over.....	157	47	52	6	147	69
Diseases of the puerperal state.....	90	77	69	35	76	75
Violent deaths:						
Suicide.....	6	11	13	.....	41	14
Not suicide.....	62	36	88	7	38	69
Homicide.....	2	1	8	.....	.....	9
All other causes of death.....	3,290	2,580	1,582	368	1,155	1,650
Total.....	6,862	6,739	5,155	1,470	5,674	4,861
Number of males.....	3,583	3,524	2,718	806	3,028	2,487
Number of females.....	3,279	3,215	2,437	664	2,646	2,374
Annual death rate per 1,000.....	18.15	26.43	26.09	26.93	25.43	15.87

*Classified report of all deaths occurring***Males:**

Married.....	723	813	458	156	623	640
Widowed.....	264	321	203	108	282	354
Divorced.....	.....	.....	.....	.....	.....	.....
Single.....	267	275	175	36	280	352
Boys.....	2,329	2,105	1,513	506	1,828	1,140
Condition not stated.....	.....	10	369	.....	15	1

**Females:**

Married.....	745	759	380	135	531	529
Widowed.....	374	494	272	102	350	464
Divorced.....	.....	.....	.....	.....	.....	.....
Single.....	360	239	120	26	199	365
Girls.....	1,800	1,719	1,288	401	1,556	1,016
Condition not stated.....	.....	4	377	.....	1	.....

Causes of death	Catan- duanes	Cavite	Cebu	Ilocos Norte	Ilocos Sur	Iloilo
Typhoid fever.....	2	57	39	27	27	66
Malaria.....	73	391	363	939	336	762
Malarial cachexia.....	1	5	6	.....	.....	18
Smallpox.....	.....	.....	.....	.....	.....	.....
Measles.....	76	.....	48	12	21	20
Scarlet fever.....	1	2	.....	.....	.....	.....
Whooping cough.....	12	1	181	.....	12	68
Diphtheria and croup.....	.....	.....	3	.....	.....	5
Influenza.....	23	1	230	.....	172	240
Asiatic cholera.....	1	.....	.....	.....	.....	.....
Dysentery.....	176	54	99	601	169	494
Leprosy.....	.....	2	2	.....	.....	2
Erysipelas.....	7	16	20	.....	3	9
Anthrax.....	4	.....	1	3	17	7
Rabies.....	.....	2	2	1	6	3
Pellagra.....	2	.....	4	.....	.....	.....
Beriberi.....	140	1,046	684	193	183	249
Tuberculosis of the lungs.....	84	398	1,442	552	512	1,290
Tuberculosis of all forms.....	12	46	56	5	38	156
Cancer and other malignant tumors.....	7	30	71	20	16	74
Meningitis, cerebrospinal epidemic.....	1	.....	2	.....	10	15
Cerebral hemorrhage, apoplexy.....	.....	17	39	14	17	25
Convulsions of infants under 5 years.....	38	152	579	875	283	1,594
Acute bronchitis.....	95	233	1,318	216	312	352
Diarrhea and enteritis:						
Under 2 years.....	7	130	743	128	82	290
Two years and over.....	16	148	688	185	49	243
Diseases of the puerperal state.....	15	52	258	54	40	139
Violent deaths:						
Suicide.....	1	5	21	13	4	16
Not suicide.....	11	27	203	52	20	57

NOTE: 8 transient deaths of Cavite, not included.

## GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) FOR 1922—Continued

Causes of death	Catanduanes	Cavite	Cebu	Ilocos Norte	Ilocos Sur	Iloilo
Homicide.....	2	4	30	6	4	4
All other causes of death.....	402	1,345	8,646	1,370	1,592	3,103
Total.....	1,208	4,163	15,778	4,766	3,926	9,301
Number of males.....	626	2,226	8,351	2,451	2,043	4,994
Number of females.....	582	1,937	7,427	2,315	1,882	4,307
Annual death rate per 1,000.....	17.20	25.64	17.54	20.90	17.52	17.77
<i>Classified report of all deaths occurring</i>						
<b>Males:</b>						
Married.....	71	442	1,566	462	431	1,026
Widowed.....	140	198	1,110	218	175	525
Divorced.....	1	1	1	1	1	1
Single.....	73	142	1,409	168	137	399
Boys.....	342	1,443	4,163	1,603	1,182	3,034
Condition not stated.....			103		118	10
<b>Females:</b>						
Married.....	82	425	1,506	394	386	923
Widowed.....	103	292	935	367	246	587
Divorced.....						
Single.....	74	87	1,300	172	120	366
Girls.....	323	1,133	3,637	1,382	973	2,417
Condition not stated.....			49		157	14

Causes of death	Isabela	Laguna	Leyte	Marinduque	Masbate	Mindoro
Typhoid fever.....	14	54	112	12	15	10
Malaria.....	655	823	2,114	251	129	359
Malarial cachexia.....	70				4	
Smallpox.....						
Measles.....			57		2	18
Scarlet fever.....						
Whooping cough.....	7	5	187	4	1	3
Diphtheria and croup.....		1	2			
Influenza.....	9		103		4	15
Asiatic cholera.....				7		
Dysentery.....	53	84	478	26	23	23
Leprosy.....			1			1
Erysipelas.....		16				1
Anthrax.....		4	11			5
Rabies.....	1	2	1			
Pellagra.....						21
Beriberi.....	122	783	1,165	147	26	190
Tuberculosis of the lungs.....	274	545	1,425	254	52	176
Tuberculosis of all forms.....	4	29	274	1	3	13
Cancer and other malignant tumors.....	2	18	49	13	3	7
Meningitis, cerebrospinal epidemic.....	1		4			
Cerebral hemorrhage, apoplexy.....	5	42	12	2		6
Convulsions of infants under 5 years.....	226	22	601	63	106	79
Acute bronchitis.....	40	592	803	59	13	50
Diarrhea and enteritis:						
Under 2 years.....	45	113	197	61	13	30
Two years and over.....	41	90	190	33	2	36
Diseases of the puerperal state.....	26	78	110	31	20	32
Violent deaths:						
Suicide.....	7	12	1	1	1	2
Not suicide.....	8	35	25	12	5	25
Homicide.....		5	18	1		3
All other causes of death.....	495	1,958	3,028	342	162	364
Total.....	2,105	5,311	10,968	1,320	584	1,462
Number of males.....	1,189	2,764	5,715	705	310	772
Number of females.....	916	2,547	5,253	615	274	698
Annual death rate per 1,000.....	17.39	25.79	17.03	22.75	8.02	18.49

NOTE.—Eight transient deaths of Cavite, not included.



## GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) FOR 1922—Continued

Causes of death	Isabela	Laguna	Leyte	Marin- duque	Masbate	Mindoro
<i>Classified report of all deaths occurring</i>						
Males:						
Married.....	332	738	1,245	221	91	185
Widowed.....	89	243	1,012	66	23	66
Divorced.....						
Single.....	84	177	150	46	37	171
Boys.....	680	1,606	3,308	370	159	350
Condition not stated.....	4			2		
Females:						
Married.....	213	663	956	170	70	142
Widowed.....	139	403	811	79	30	61
Divorced.....						
Single.....	32	102	140	45	16	210
Girls.....	519	1,379	3,346	319	158	277
Condition not stated.....	13			2		

Causes of death	Nueva Ecija	Nueva Vizcaya	Occ. Ne- gros	Or. Ne- gros	Palawan	Pam- panga
Typhoid fever.....	127	1	13	29		201
Malaria.....	882	358	1,345	1,177		350
Malarial cachexia.....	66	17	20	3		10
Smallpox.....	1			10		
Measles.....	35			3		12
Scarlet fever.....	1			1		
Whooping cough.....	16		49	334		20
Diphtheria and croup.....		2	7			1
Influenza.....	18		34	47		17
Asiatic cholera.....	1					6
Dysentery.....	179	6	696	204		85
Leprosy.....			1			
Erysipelas.....	2		3	33		14
Anthrax.....	7		2	7		11
Rabies.....	3		7	2		2
Pellagra.....	25		1			
Beriberi.....	954	16	431	556		743
Tuberculosis of the lungs.....	621	54	1,007	471		891
Tuberculosis of all forms.....	28		95	76		63
Cancer and other malignant tumors.....	37	1	45	15		33
Meningitis, cerebrospinal epidemic.....	7		2	1		5
Cerebral hemorrhage, apoplexy.....	53		21	11		58
Convulsions of infants under 5 years.....	458		1,073	386		209
Acute bronchitis.....	331	96	286	485		325
Diarrhea and enteritis:						
Under 2 years.....	77	7	260	175		81
Two years and over.....	78	7	391	138		63
Diseases of the puerperal state.....	93	13	114	67		103
Violent deaths:						
Suicide.....	16		26	11		9
Not suicide.....	63	14	73	42		47
Homicide.....	4	2	7	12		
All other causes of death.....	1,363	377	2,537	1,399		3,127
Total.....	5,546	971	8,546	5,696		6,485
Number of males.....	2,972	524	4,650	2,971		3,524
Number of females.....	2,574	447	3,896	2,725		2,961
Annual death rate per 1,000.....	22.40	27.09	20.53	19.76		24.46

*Classified report of all deaths occurring*

Males:						
Married.....	668	161	991	619		829
Widowed.....	237	36	444	247		337
Divorced.....						
Single.....	103	102	399	275		268
Boys.....	1,874	225	2,805	1,830		2,083
Condition not stated.....			15			7
Females:						
Married.....	560	118	865	557		632
Widowed.....	291	75	561	373		442
Divorced.....						
Single.....	119	91	212	250		201
Girls.....	1,604	163	2,252	1,544		1,685
Condition not stated.....			6	1		1

## GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) FOR 1922—Continued

Causes of death	Pangasinan	Rizal	Romblon	Samar	Sorsogon	Tarlac
Typhoid fever.....	152	69	3	24	51	118
Malaria.....	2,669	170	234	1,445	512	375
Malarial cachexia.....	20	9	17	2	4	5
Smallpox.....	230	9	1	1	64	7
Measles.....	47	5	15	281	33	8
Scarlet fever.....	4	1	18	36	23	113
Whooping cough.....	347	95	18	36	23	4
Diphtheria and croup.....	637	61	32	634	227	115
Influenza.....	1	1	2	2	2	8
Asiatic cholera.....	3	11	19	3	48	3
Dysentery.....	9	2	1	27	3	2
Leprosy.....	3	7	1	3	6	9
Erysipelas.....	585	886	52	598	211	355
Anthrax.....	1,866	919	129	449	415	544
Rabies.....	37	62	14	53	61	33
Pellagra.....	49	56	8	41	18	7
Beriberi.....	54	77	3	15	5	20
Tuberculosis of the lungs.....	1,192	75	178	737	563	552
Tuberculosis of all forms.....	993	325	12	586	257	278
Cancer and other malignant tumors.....	449	226	35	111	5	78
Meningitis, cerebrospinal epidemic.....	255	145	10	87	9	48
Cerebral hemorrhage, apoplexy.....	2 years and over.....	141	47	23	141	49
Convulsions of infants under 5 years.....	Violent deaths:	20	9	5	13	7
Acute bronchitis.....	Suicide.....	114	27	14	50	17
Diarrhea and enteritis:	Not suicide.....	13	1	9	2	5
Under 2 years.....	Homicide.....	3,832	2,475	319	1,350	1,099
2 years and over.....	All other causes of deaths.....	13,722	5,769	1,144	6,705	3,747
Diseases of the puerperal state.....	Total.....	7,272	4,143	593	3,510	2,010
Violent deaths:	Number of males.....	5,450	2,626	551	3,195	1,737
Suicide.....	Number of females.....	23.06	23.28	17.02	16.57	19.59
Not suicide.....	Annual death rate per 1,000.....	23.06	23.28	17.02	16.57	19.59
Homicide.....	Classified report of all deaths occurring	23.06	23.28	17.02	16.57	19.59
All other causes of deaths.....	Males:	1,557	782	180	687	559
Total.....	Married.....	541	286	53	374	220
Number of males.....	Widowed.....	1	3	3	203	244
Number of females.....	Divorced.....	406	247	45	203	244
Annual death rate per 1,000.....	Single.....	4,764	1,812	140	1,929	986
Classified report of all deaths occurring	Boys.....	3	16	172	317	1
Males:	Condition not stated.....	1,418	692	142	649	490
Married.....	Females:	870	428	96	363	232
Widowed.....	Married.....	296	108	27	232	200
Divorced.....	Widowed.....	3,865	1,385	119	1,700	787
Single.....	Divorced.....	1	13	162	251	28
Girls.....	Single.....	1	13	162	251	28
Condition not stated.....	Girls.....	1	13	162	251	28
	Condition not stated.....	1	13	162	251	28

Causes of death	Tayabas	Union	Zambales
Typhoid fever.....	69	52	45
Malaria.....	923	246	231
Malarial cachexia.....	76	3	1
Smallpox.....	1	6	1
Measles.....	29	29	15
Scarlet fever.....	2	1	1
Whooping cough.....	40	177	3
Diphtheria and croup.....	90	116	4
Influenza.....	1	1	97
Asiatic cholera.....	1	1	1
Dysentery.....	7	1	1
Leprosy.....	1	1	1
Erysipelas.....	1	1	1
Anthrax.....	3	2	2
Rabies.....	2	1	1
Pellagra.....	2	1	1

## GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) FOR 1922—Continued

Causes of death	Tayabas	Union	Zambales
Beriberi.....	481	199	192
Tuberculosis of the lungs.....	863	445	300
Tuberculosis of all forms.....	67	28	16
Cancer and other malignant tumors.....	17	10	8
Meningitis, cerebrospinal epidemic.....	5	1	1
Cerebral hemorrhage, apoplexy.....	37	22	1
Convulsions of infants under 5 years.....	233	6	211
Acute bronchitis.....	354	326	51
Diarrhea and enteritis:			
Under 2 years.....	121	38	30
Two years and over.....	52	40	59
Diseases of the puerperal state.....	69	33	21
Violent deaths:			
Suicide.....	17	14	1
Not suicide.....	65	29	29
Homicide.....	8	1	1
All other causes of death.....	1,800	1,281	401
Total.....	5,433	3,107	1,713
Number of males.....	2,929	1,671	855
Number of females.....	2,504	1,436	858
Annual death rate per 1,000.....	24.14	18.76	19.67
<i>Classified report of all deaths occurring</i>			
Males:			
Married.....	866	410	206
Widowed.....	213	141	63
Divorced.....			1
Single.....	268	117	58
Boys.....	1,580	930	527
Condition not stated.....	2	73	
Females:			
Married.....	678	315	196
Widowed.....	393	184	93
Divorced.....		1	
Single.....	132	121	50
Girls.....	1,296	779	518
Condition not stated.....	5	36	1

## GENERAL SUMMARY OF DEATHS (WITH CAUSES), ETC.

Typhoid fever.....	1,886
Malaria.....	24,503
Malarial cachexia.....	643
Smallpox.....	12
Measles.....	834
Scarlet fever.....	11
Whooping cough.....	1,951
Diphtheria and croup.....	46
Influenza.....	2,584
Asiatic cholera.....	48
Dysentery.....	7,387
Leprosy.....	18
Erysipelas.....	345
Anthrax.....	195
Rabies.....	90
Pellagra.....	61
Beriberi.....	15,133
Tuberculosis of the lungs.....	22,738
Tuberculosis of all forms.....	1,831
Cancer and other malignant tumors.....	855
Meningitis, cerebrospinal epidemic.....	90
Cerebral hemorrhage, apoplexy.....	758
Convulsions of infants under 5 years.....	13,779
Acute bronchitis.....	11,608
Diarrhea and enteritis:	
Under 2 years.....	4,435
Two years and over.....	3,890
Diseases of the puerperal state.....	2,549
Violent deaths:	
Suicide.....	368
Not suicide.....	1,646
Homicide.....	175
All other causes of death.....	61,887

Total.....	182,406
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Number of males.....	96,508
Number of females.....	85,898

Annual death rate per 1,000.....	20.14
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## Summary deaths, by civil conditions

Males:	
Married.....	21,149
Widowed.....	9,816
Divorced.....	7
Single.....	8,187
Boys.....	56,086
Condition not stated.....	1,263
Females:	
Married.....	18,471
Widowed.....	12,199
Divorced.....	12
Single.....	6,914
Girls.....	47,142
Condition not stated.....	1,160

NOTE.—Eight transient deaths of Cavite, not included.

Data from Mountain Province and Palawan not yet available and therefore not included in this table.

## GENERAL RETURN OF BIRTH AND DEATH RATES IN THE PROVINCES, BY NATIONALITY, FOR THE CALENDAR YEAR 1922

Nationality	Population <sup>1</sup>	Number of births	Annual birth rate per 1,000	Number of deaths	Annual death rate per 1,000
Americans.....	2,251	37	16.44	32	14.22
Filipinos.....	9,031,244	338,373	37.47	182,169	20.17
Europeans.....	2,115	9	4.26	16	7.57
Chinese.....	19,039	114	5.99	188	9.87
Other Asiatics.....	898	6	6.68	6	6.68
Other nationalities.....	393	1	2.54	3	7.63
Total and average.....	9,055,940	338,540	37.38	*182,414	20.14

<sup>1</sup> Estimated as of July 1st.

\* Palawan and Mountain Province excluded.

**REPORT OF SICK AND WOUNDED POOR ATTENDED BY LOCAL HEALTH OFFICERS IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS DURING THE CALENDAR YEAR 1922**

Province	Indigent		Consubratory		Government employees		Subtotal		Total	Recoveries		Deaths		Total visits
	Male	Female	Male	Female	Male	Female	Male	Female		Male	Female	Male	Female	
Abra.....	544	323	44	1	225	21	813	345	1,158	580	275	1	2	206
Albay.....	2,641	1,771	8		118	5	2,767	1,776	4,543	2,702	1,830	54	47	4,737
Antique.....	50	23					50	23	73	50	23			119
Bataan.....	359	233	2	1	17	1	378	235	613	123	74	31	13	454
Batanes.....	177	133			27	3	205	136	341	203	135			23
Batangas.....	4,977	1,986	29		214	40	5,220	2,026	7,246	4,932	1,878	78	47	3,960
Bohol.....	16,520	8,186	48				17,407	8,222	25,629	17,227	870			113
Bulacan.....	3,235	1,836	3	2	54	10	3,292	1,848	5,140	2,891	1,609	16	26	5,061
Cagayan.....	144	54					144	54	198	68	20			37
Canarines Sur.....	1,357	927	10		138	8	1,505	935	2,440	939	520	34	27	756
Capiz.....	1,978	1,125	11		49	7	2,038	1,132	3,170	1,975	1,123	64	43	1,385
Catanduanes.....	842	544	3		103	22	948	566	1,514	899	538	3	1	3,377
Cavite.....	1,349	1,290	38	5	24	2	1,411	1,297	2,708	812	598	26	30	2,161
Cebu.....	1,851	845	14		280	31	2,145	876	3,021	1,033	422	2	2	7,716
Iloos Norte.....	7,061	5,640	1		41	10	7,102	5,650	12,153	6,799	4,828	304	222	5,205
Iloos Sur.....	1,857	954	16		225	6	2,098	960	3,058	2,611	918	87	42	5,349
Iloilo.....	396	225	10				500	236	736	488	219	131	106	659
Isabela.....	3,644	2,537	24		94	11	3,922	2,549	6,471	3,375	2,251	72	54	2,814
Laguna.....	1,750	895	15		254	12	1,855	898	2,753	1,655	786	8	5	3,327
La Union.....	1,614	558	20		196	3	1,830	822	2,652	2,882	74	5	2	3,327
Leyte.....	818	384	8		172	264	998	393	1,391	992	388	6	5	891
Marinduque.....	1,491	835	18		58	5	1,555	893	2,448	363	164	7	3	483
Masbate.....	3,092	1,228	8	3	377	58	3,477	1,292	4,769	975	497	40	10	4,889
Mindoro.....	1,863	1,450			66	3	1,929	1,455	3,384	1,506	997	16	10	4,747
Nueva Vizcaya.....	4,812	2,007	15	5	130	14	4,977	2,026	7,003	5,048	1,059	423	419	5,337
Occidental Negros.....	2,805	1,236	58	1	398	50	3,261	1,287	4,548	3,120	2,071	30	27	5,229
Oriental Negros.....												18	11	6,934
Palawan.....	974	690	12		84	1	1,070	691	1,761	279	175	59	60	346
Pampanga.....	6,138	2,545	28		260	24	6,415	2,569	8,984	4,374	1,939	9	7	3,552
Pangasinan.....	2,312	1,153	27		117	3	2,457	1,156	3,613	1,178	407	68	54	1,331
Rizal.....							16	3	19	16	3			34
Samar.....	4,857	2,397	44		330	11	5,231	2,408	7,639	5,016	2,207	213	198	7,810
Sarangani.....	331	33			2		137	33	170	136	82			252
Sorsogon.....	2,384	997	40	5	506	14	2,830	1,016	3,946	2,903	994	28	22	2,940
Tarlac.....	940	574	9		94	1	1,043	575	1,618	1,032	552	52	28	2,519
Tayabas.....	150	81	4				158	81	239	110	50	12		233
Zambales.....														
<b>Total.....</b>	<b>85,898</b>	<b>45,280</b>	<b>635</b>	<b>54</b>	<b>5,497</b>	<b>717</b>	<b>96,032</b>	<b>48,141</b>	<b>144,173</b>	<b>69,054</b>	<b>34,311</b>	<b>2,093</b>	<b>1,645</b>	<b>95,709</b>

1 Not classified.

**MARRIAGES, BIRTHS, DEATHS, AND INFANT MORTALITY, BY PROVINCES  
FOR THE CALENDAR YEAR 1922**

Province	Marriages	Births		Deaths		Infant mortality
		Males	Females	Males	Females	
Abra.....	268	1,230	1,097	453	376	188
Albay.....	1,466	4,952	4,447	2,599	2,550	1,186
Antique.....	953	2,991	2,578	1,360	1,321	530
Bataan.....	450	1,152	1,003	939	732	583
Batanes.....	56	129	127	113	111	61
Batangas.....	2,610	7,628	7,085	4,005	3,689	2,559
Bohol.....	2,819	(*)	15,357	3,583	3,279	1,937
Bulacan.....	2,425	5,183	4,704	3,524	3,215	2,736
Cagayan.....	1,596	4,777	4,182	2,718	2,437	1,299
Camarines Norte.....	324	1,242	1,092	806	664	357
Camarines Sur.....	1,585	4,820	4,485	3,028	2,646	1,280
Capiz.....	1,435	5,006	4,635	2,487	2,374	1,180
Catanduanes.....	354	1,155	1,109	626	582	220
Cavite.....	1,357	3,016	2,846	2,226	1,937	1,551
Cebu.....	4,800	18,499	17,063	8,351	7,427	3,936
Ilocos Norte.....	1,271	4,326	3,606	2,451	2,315	900
Ilocos Sur.....	1,300	3,902	3,476	2,043	1,882	1,018
Iloilo.....	2,924	(*)	20,432	4,994	4,307	2,547
Isabela.....	725	2,457	2,131	1,189	916	491
Laguna.....	1,864	3,862	3,749	2,764	2,547	1,917
La Union.....	893	3,269	3,089	1,671	1,436	851
Leyte.....	3,222	12,266	9,963	5,715	5,253	2,518
Marinduque.....	508	1,468	1,354	705	615	371
Masbate.....	439	940	783	310	274	160
Mindoro.....	536	1,221	1,157	772	690	436
Nueva Ecija.....	2,094	4,472	3,863	2,972	2,574	1,982
Nueva Vizcaya.....	222	801	637	524	447	259
Occidental Negros.....	2,873	7,429	6,469	4,650	3,896	1,994
Oriental Negros.....	2,205	4,160	4,057	2,971	2,725	1,411
Palawan.....						
Pampanga.....	2,350	6,039	5,359	3,524	2,961	2,646
Pangasinan.....	4,643	13,937	12,590	7,272	6,450	4,321
Rizal.....	2,316	4,449	4,060	3,143	2,626	2,032
Romblon.....	582	1,347	1,147	593	551	283
Samar.....	2,517	7,354	6,848	3,510	3,195	1,718
Sorsogon.....	892	3,333	3,047	2,010	1,737	826
Tarlac.....	1,427	4,283	3,745	2,123	1,799	1,451
Tayabas.....	2,344	4,980	3,987	2,929	2,504	1,799
Zambales.....	622	1,640	1,466	855	858	412
Total.....	61,267	159,715	178,825	96,508	85,898	51,946

\* Not classified by sexes.

NOTE.—Eight transient deaths of Cavite, not included.

# DIVISION OF MINDANAO AND SULU

POPULATION, MARRIAGES, BIRTHS, DEATHS, INFANT MORTALITY, MARRIAGE RATE, BIRTH RATE, DEATH RATE, AND INFANT MORTALITY RATE, BY PROVINCES

	Agusan	Bukidnon	Cotabato	Davao	Lanao	Misamis	Sulu	Surigao	Zamboanga
Population 1.....	49,126	48,544	182,168	117,667	102,515	213,245	190,944	129,226	158,220
Deaths.....	573	527	163	127	153	4,490	107	2,356	1,107
Births.....	297	216	358	1,578	302	8,790	175	2,931	2,525
Marriages.....	263	15	33	293	101	1,700	37	654	690
Infant mortality under 1 year.....	122	33	41	180	44	1,377	37	537	365
Deaths without medical attendance.....	545	196	112	744	92	4,394	66	2,021	703
Death rate.....	11.66	4.53	91	7.88	1.49	21.06	.56	18.23	7.00
Birth rate.....	16.00	5.09	1.97	13.41	2.95	41.22	.92	22.68	15.96
Marriage rate.....	10.71	7.78	1.53	4.36	1.97	15.34	.39	10.12	8.72
Infant mortality rate.....	155.22	133.60	114.53	114.77	145.70	156.66	211.43	183.21	144.55
Percentage of death without medical attendance.....	95.11	89.09	67.88	80.26	60.13	97.86	61.68	85.78	63.50

1 Estimated as of July 1st.

## DEATHS BY AGE GROUPS

	Agusan	Bukidnon	Cotabato	Davao	Lanao	Misamis	Sulu	Surigao	Zamboanga
Under 30 days.....	42	4	17	60	19	627	7	182	91
30 days to under 1 year.....	80	29	24	120	25	750	30	355	274
1 year.....	55	14	11	87	10	489	18	300	90
2 years to 4 years.....	93	10	10	71	12	449	10	302	98
5 years to 9 years.....	68	18	12	61	10	262	4	283	106
10 years to 14 years.....	27	15	4	35	2	197	3	127	29
15 years to 19 years.....	25	8	4	39	2	151	5	91	29
20 years to 29 years.....	28	27	12	121	14	311	4	152	85
30 years to 39 years.....	33	34	11	134	13	293	4	156	67
40 years to 49 years.....	38	17	9	69	12	256	9	143	69
50 years to 59 years.....	21	14	5	51	9	156	3	85	46
60 years to 69 years.....	10	9	12	31	10	196	6	76	44
70 years to 79 years.....	7	7	5	18	3	156	2	49	39
80 years to 89 years.....	6	8	4	20	7	107	2	33	24
90 years to 99 years.....	2	1	3	8	1	46	2	11	15
100 years and over.....	18	5	22	2	3	13	.....	10	1
Total.....	573	220	165	927	153	4,490	107	2,356	1,107

**COMPARATIVE MARRIAGE, BIRTH, AND DEATH RATE PER 1,000 POPULATION  
AND DEATH RATE UNDER ONE YEAR**

Province	Marriages		Births		Deaths		Deaths under 1 year	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Agusan.....	263	10.71	786	16.00	573	11.66	122	155.22
Bukidnon.....	19	.78	247	5.09	220	4.53	33	133.60
Cotabato.....	53	.58	358	1.97	165	.91	41	114.53
Davao.....	293	4.98	1,578	13.41	927	7.88	180	114.07
Lanao.....	101	1.97	302	2.95	153	1.49	44	145.70
Misamis.....	1,700	15.94	8,790	41.22	4,490	21.06	1,377	156.66
Sulu.....	37	.39	175	.92	107	.56	37	211.43
Surigao.....	654	10.12	2,931	22.68	2,356	18.23	537	183.21
Zamboanga.....	690	8.72	2,525	15.96	1,107	7.00	365	144.55
Total.....	3,810	6.39	17,692	14.85	10,098	8.47	2,736	154.65

**GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) FOR 1922**

Causes of death	Agusan	Bukidnon	Cotabato	Davao	Lanao	Misamis
Typhoid fever.....	1		3	3	4	12
Malaria.....	190	78	34	232	26	1,149
Malarial cachexia.....	1	1	1		1	1
Smallpox.....		7				
Measles.....	3	1				46
Scarlet fever.....						
Whooping cough.....	2	4	3		2	36
Diphtheria and croup.....	1	1				1
Influenza.....	6			13		102
Asiatic cholera.....						
Dysentery.....	100	8	4	21	8	40
Leprosy.....						5
Erysipelas.....	2					41
Anthrax.....	1					1
Rabies.....	1					
Pellagra.....						
Beriberi.....	22	14	17	135	9	574
Tuberculosis of the lungs.....	32	24	24	72	10	388
Tuberculosis of all forms.....	3	2	2	10	5	7
Cancer and other malignant tumors.....	4			4	1	20
Meningitis, cerebrospinal epidemic.....	2			5		
Cerebral hemorrhage, apoplexy.....	2		2	5		5
Convulsions of infants under 5 years.....	33	10	1	13	14	505
Acute bronchitis.....	36	1	6	18	4	123
Diarrhea and enteritis:						
Under 2 years.....	5	1	3	15	4	67
Two years and over.....		8	1	11	1	94
Diseases of the puerperal state.....	6	2	5	24	3	93
Violent deaths:						
Suicide.....	3	2	1	4	1	19
Not suicide.....	7	16	4	24	5	40
Homicide.....	2	1	1	4		5
All other causes of death.....	108	39	53	314	55	1,122
Total.....	573	220	165	927	153	4,490
Number of males.....	331	124	102	537	87	2,513
Number of females.....	242	96	63	390	66	1,977
Annual death rate per 1,000.....	11.66	4.53	.91	7.88	1.49	21.06
<i>Classified report of all deaths occurring</i>						
Males:						
Married.....	66	64	23	175	21	544
Widowed.....	15	7	7	21	5	162
Divorced.....						
Single.....	23	8	10	137	17	249
Boys.....	211	44	41	172	43	1,556
Condition not stated.....	16	1	21	32	1	3
Females:						
Married.....	44	36	13	128	19	413
Widowed.....	23	10	7	56	10	195
Divorced.....						
Single.....	17	2	3	80		146
Girls.....	154	46	37	102	35	1,218
Condition not stated.....	4	2	3	24	2	5



## GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) FOR 1922—Continued

Causes of death	Sulu	Surigao	Zamboanga	Total deaths
Typhoid fever	1	8	9	41
Malaria	14	161	109	1,993
Malarial cachexia			4	9
Smallpox				7
Measles		68	58	170
Scarlet fever				2
Whooping cough	2	185	8	242
Diphtheria and croup				3
Influenza		129	32	282
Asiatic cholera				
Dysentery	1	154	44	380
Leprosy			1	6
Erysipelas			4	47
Anthrax			2	4
Rabies		1	1	3
Pellagra				
Beriberi	12	164	139	1,086
Tuberculosis of the lungs	9	169	109	837
Tuberculosis of all forms		25	10	64
Cancer and other malignant tumors		10	9	48
Meningitis, cerebrospinal epidemic		2		9
Cerebral hemorrhage, apoplexy	1	5	9	29
Convulsions of infants under 5 years	6	34	25	641
Acute bronchitis	3	372	58	621
Diarrhea and enteritis:				
Under 2 years	10	97	25	227
Two years and over		113	21	249
Diseases of the puerperal state		35	21	189
Violent deaths:				
Suicide	1	41	2	74
Not suicide	1	16	25	138
Homicide	2		6	21
All other causes of death	44	567	374	2,676
Total	107	2,356	1,107	10,098
Number of males	58	1,300	629	5,681
Number of females	49	1,056	478	4,417
Annual death rate per 1,000	56	18.23	7.00	8.47
<i>Summary deaths by civil condition,</i>				
Males:				
Married	16	196	145	1,250
Widowed		144	44	405
Divorced				
Single	4	99	45	591
Boys	38	858	384	3,347
Condition not stated		3	11	88
Females:				
Married	5	148	108	914
Widowed	5	117	44	467
Divorced				
Single	5	99	19	371
Girls	34	691	304	2,621
Condition not stated		1	3	44



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# **CIRCULARS**

**PHILIPPINE HEALTH SERVICE**

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**SERIES U, 1922**



## PHILIPPINE HEALTH SERVICE

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MANILA, January 12, 1922

CIRCULAR }  
U-1 }

*To all Officers and employees of the Philippine Health Service:*

Attention of all concerned is invited to section 1447 of the Administrative Code which requires the presentation of cedula certificates for the current year upon receiving any money from any public fund by all persons, unless otherwise by law exempt to do so, except during the month of January of each calendar year, in which case the old one is sufficient. Accordingly, it is directed that cedula 1922 be obtained on or before the 31st of January, 1922, and the number, date, and place of issue reported to this office for recording in the payroll.

Should any officer or employee fail to comply with the above, payment of his salary will be withheld until due compliance herewith.

A representative of the City Treasurer will be at the Central Office on January 16, 1922, for the purpose of selling cedulas to all employees who may desire to buy them at that time. Old cedulas must be presented on the occasion.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, January 10, 1922

CIRCULAR }  
U-2 }

*To all Health Officers of the service:*

Attention is invited to the provisions of Provincial Circular No. 205 of the Executive Bureau dated December 28, 1921, quoted below:

*Subject: Artesian Wells, Pumps, and Flowing Maintenance of.*

In accordance with a conference had between representatives of the Bureau of Public Works, the Philippine Health Service and this office, the

direct supervision over the maintenance of artesian wells and pumps is hereby transferred to and will hereafter devolve upon the district engineers, thus relieving the provincial treasurers and municipal treasurers of their duties in this regard as defined in our Provincial Circular No. 34 of June 23, 1913. Provincial boards and municipal councils are, however, requested to make a permanent annual appropriation from provincial and municipal funds of an amount equivalent to ₱125 per pump well, and ₱25 per flowing well for the proper maintenance and repair of all existing wells owned by the province or municipality. A properly maintained artesian well should furnish water to the public at all times, and surplus water coming from the well should run freely to the drainage ditch instead of allowing it to create breeding places for mosquitoes.

Provincial and municipal treasurers are hereby required to *keep in stock at all times* a complete set of artesian well pumps and other spare parts thereof, the same to be purchased from the permanent maintenance fund herein-above created, for use in case of necessity. The names and description of spare parts of all kinds of pumps used by the Bureau of Public Works may be secured from the District Engineer. Requisition for these pumps and other spare parts must be made to the Bureau of Supply, as usual.

Machinery and artesian well inspectors, charged with the duty of constantly inspecting and repairing artesian wells in the province, shall hereafter be placed in the provincial plantillas of personnel under the immediate supervision of the District Engineer instead of the Provincial Treasurer as has heretofore been the case in some provinces. The salary and traveling expenses of the said inspectors will hereafter be defrayed proportionately by the province and the municipalities of the province having artesian wells according to the time actually consumed in repairing or inspecting each well in the province.

Provincial Circular No. 34 of this office is hereby superseded.

Provincial Treasurers will transmit the contents hereof to the municipal officials concerned in accordance with the provisions of Provincial Circular No. 5 of this office.

(Sgd.) HONORIO VENTURA  
*Chief, Executive Bureau*

District Health Officers are, therefore, directed to communicate with the District Engineers of their districts and obtain from them information as to the persons to whom local health officers in each town where artesian wells exist should communicate for the prompt correction of deficiencies observed in the handling and operation of artesian wells in their localities. It is also requested that proper remarks pertaining to the maintenance and operation of artesian wells in their districts be made on the reports submitted to this office.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, January 16, 1922

CIRCULAR }  
U-3 }

*To all District Health Officers, Presidents of Sanitary Divisions,  
and local health officers:*

It has been agreed between this office and the Bureau of Agriculture that hogs coming from provinces to be slaughtered immediately in the City of Manila shall not be certified by veterinarians as fit for human consumption unless certificates from local health officers are produced to the effect that the hogs had been properly well cared for.

You are, therefore, directed to make this arrangement public in your locality, and issue certificates for hog or hogs to be brought to Manila from your locality to be slaughtered, that they had been well cared for, if such is the case.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, January 24, 1922

CIRCULAR }  
U-4 }

*To all District Inspectors, District Health Officers, and Presidents of Sanitary Divisions:*

Circular T-67 dated September 1, 1921, is hereby amended as follows:

District Inspectors, District Health Officers, and Presidents of Sanitary Divisions are hereby authorized to give statistical information, without getting the prior approval of this office, with reference to infant mortality, and the operations of women's clubs, and puericulture and health centers within their respective districts or divisions.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, *February 3, 1922*CIRCULAR }  
U-5 }*To District Health Officers and other health officials concerned:*

In view of several protests received from District Health Officers against the action of several provincial boards curtailing appropriation for the health service because of the instruction of the Governor-General for the reduction of 15 per cent expenditures for salaries of Government offices, a letter has been written to the Governor-General requesting information as to whether or not it was the intention to apply the said instruction also to the activities of the health service in provinces. This office has learned that it was not the intention of the Governor-General in giving the said instructions to curtail the health work in provinces. A copy of the indorsement from the office of the Governor-General with regard to the subject obtained by this Service reads as follows:

Respectfully referred to the Chief of the Executive Bureau, through the Honorable, the Secretary of the Interior, with the information that the Governor-General does not desire to have the health work in the provinces curtailed, and he wishes provincial boards to be advised accordingly.

It is, therefore, suggested that District Health Officers and health officials concerned should bring to the attention of the provincial and municipal officials this desire of the Governor-General with a view to induce them not only to keep the actual appropriations for health activities but to give liberal allowances therefor.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, *February 14, 1922*CIRCULAR }  
U-6 }*To all Chiefs of Divisions, Hospitals and Offices, District Health Officers, Medical Officers in charge of Stations, and others concerned:*

Recent events have shown the necessity of inviting the attention of all concerned to the provisions of sections 684 and 685 of the Administrative Code, which are hereunder quoted:



684. *Limitation on employment of persons in classified service.*—No person appointed to a position in the classified service shall, without the approval of the Director of Civil Service, be assigned to or employed in a position of a grade or character not contemplated by the examination from the results of which appointment was made, unless otherwise provided by law.

685. *Limitation on employment of person in unclassified service.*—A person appointed to a position in the unclassified service shall not be employed in any position in the classified service nor shall he be allowed to do clerical duties other than such as may pertain to the office to which he was appointed.

The above provisions of law are specific. No person appointed to a position in the unclassified service shall be employed in any position in the classified service, nor shall he be allowed to do clerical duties other than those pertaining to the office to which he was appointed; thus laborers cannot be assigned to clerical duties. Chiefs of Hospitals, offices, Divisions, and Sections are hereby directed to comply strictly with the provisions of law and Civil Service regulations governing the assignment of duties of their respective subordinates, and officers or employees concerned will be held accountable and responsible for violations of these instructions.

V. JESUS

*Director of Health*

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## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-7 }

MANILA, January 31, 1922

*To all Chiefs of Divisions, Chiefs of Hospitals, District Health Officers, and others authorized to incur official obligations payable by the Philippine Health Service, and charged with reporting the same:*

For the guidance of all concerned, general circular No. 176 of the Insular Auditor dated December 22, 1921, is hereunder reproduced:

THE GOVERNMENT OF THE PHILIPPINE ISLANDS  
BUREAU OF AUDITS  
MANILA

GENERAL CIRCULAR No. 176

SUBJECT. *Rendition of Insular Accounts Amending General Circular No. 156*  
*December 22, 1921*

General Circular No. 156 is hereby amended to read as follows:

Pursuant to the authority vested in the undersigned by section 24 of the Act of Congress, approved August 29, 1916, commonly known as the

"Jones Act," the following regulations governing the rendition of Insular accounts are hereby promulgated:

1. Chiefs of Bureaus and Offices are requested to call the attention of accounting officers to the requirements of the Auditor's circulars and to issue administrative orders to insure compliance therewith.

2. The chief accountant of each Bureau or Office of the Insular Government will submit to the Auditor, *not later than twenty days after the close of each fiscal year*, the accounts for the month of December of said fiscal year.

3. Hereafter the chief accountant of every Bureau or Office will close his journal for each calendar month, except December, *not later than the fifth day of the succeeding month* and will thereupon submit to the Auditor a trial balance which will be forwarded sufficiently early to reach the Bureau of Audits on the *tenth day* of said succeeding month.

4. Hereafter the chief accountant of every Bureau or Office will also close his journal on the *tenth day and twentieth day of every month* and submit a trial balance to the Insular Auditor within five days after the date of closing.

5. Insofar as practicable, all obligations incurred in any month or ten-day period will appear in the journal for that month or ten-day period either as actual payments or as accounts payable, and the uncollected earnings or income pertaining to said month or ten-day period will also appear in the corresponding journal as accounts receivable.

6. All acquisitions of supplies and equipment involving property accountability will be taken into account during the month or ten-day period in which received, and all movements whatever in property involving issue, sale, transfer, or change in the nature of the asset, will, insofar as practicable, be entered in the journal for the month of ten-day period in which the transaction occurs.

7. Not later than November 1st of each year the chief of each Bureau or Office will instruct all employees and agents of his bureau outside Manila to mail their December accounts sufficiently early to reach Manila by the tenth day of January in order that said accounts may be entered on the December journal of the Bureau or Office to which they pertain.

8. In cases where employees or agents are located at some distance from Manila and the mail communication is so infrequent that December accounts cannot reach Manila by the tenth day of January, the chief of each Bureau or Office will require that such employees or agents report to him by telegraph, not later than the third day of January, the status of their accounts, itemized as follows:

(a) Classification and amount of expenditures to December 31st, the vouchers for which have not been forwarded sufficiently early to reach Manila prior to January 10th.

(b) Classification and amount of outstanding indebtedness as of December 31st.

(c) Classification and amount of unreported collections to December 31st.

The transactions shown by these reports will thereupon be journalized by the Bureau or Office concerned and taken into account as of December 31st.

(Sgd.) E. M. FULLINGTON  
*Insular Auditor*

Approved:

(Sgd.) LEONARD WOOD  
*Governor-General*

In order that this office may fully comply with the above-quoted General Circular of the Insular Auditor, and in order that complete data may be had at anytime relative to the standing of expenditures and obligations incurred by this Service, the following instructions are hereby issued:

A. District Health Officers should make efforts to have provincial bills rendered to this office monthly, covering all the month's expenditures by the province in behalf of the Philippine Health Service. Such bills should be submitted in proper form, the provisions of Circular T-38 should be fully observed.

B. All officers charged with submitting accounts should render financial reports of their respective Divisions or Offices, (expenditures or obligations, incomes, and collections) three times a month; i. e., on the 10th of the month, on the 20th, and on the 5th of the succeeding month, the first report to correspond to the first ten-day period of the month; the second, to the second ten-day period; and the last, to correspond to the whole month, and will include all the financial transactions of the Division or Office, not included in the two previous reports.

C. In complying with the above, three separate statements will usually be required as follows:

- (1) Statement of salaries and wages.
- (2) Statement of Miscellaneous Expenses (other than salaries and wages).
- (3) Statement of Incomes and Collections.

These statements should be prepared fully, and, when received at the Central Office, should be ready to be submitted to the Insular Auditor. Each statement will be prepared in separate sheets, and triplicate copies to be submitted to this office. For the sake of uniformity the forms and headings shown on Exhibits A and B of this circular, which are only modifications of those given in exhibits of Circular P-43, are hereby prescribed for the statements of salaries and wages, and that for miscellaneous expenses.

The statement of Incomes and Collections are required of hospitals and offices in which incomes accrue, and cash collections are made. Their reports should be prepared in the

same manner as heretofore, except that reports of incomes (Statement of Income) and collections (Abstracts of Collections) should be submitted at the end of each ten-day period, and not only at end of each month as previously done. These cover accounts receivable reports, and abstracts of collections and deposits, as well as report of the operation of the Culion Store.

D. To show the scope of the required reports, a few details may be given:

District Health Officers will report, as in Exhibit A, their salaries, and those of any nurse, clerk, or assistant Sanitary Inspector, and the wages of any insular vaccinator or laborer under them, whose salaries are chargeable to the Philippine Health Service (if there be any assignments of such in their respective Health Districts); and, as in Exhibit B, their traveling expenses; the transportation of lepers that are being apprehended or concentrated, and the transportation of the conductors of these lepers; and the subsistence of lepers confined in the Province. Other items of expense in certain provinces are also incurred in connection with the transportation of vaccines and virus, and in connection with the operation of Provincial Hospitals, in which previous arrangement has been made with this Service. All these come under Miscellaneous Expenses. In this connection, the attention of the District Health Officer is drawn to the fact that the expenses herein referred to, pertains only to Insular funds, and should not be confused with Provincial Health funds or other funds.

District Inspectors will report, as in Exhibit A, their salaries, and those of the Insular Assistant Sanitary Inspectors under them; and, as in Exhibit B, their traveling expenses; and the expenses in connection with the operation of their respective offices, such as, supplies, postage stamps, rental of buildings, light services, purchase of equipment, repair of equipment, etc., giving each nature of expense and amount thereof separately.

Chiefs of Vaccinating Parties will report: (Exhibit A) their salaries and those of their assistants; and the wages of vaccinators; and (Exhibit B) the traveling expenses of each individual in the party, who would submit traveling expense vouchers therefor; and the expenses in connection with the operation of their offices, as in the next preceding paragraph.

Medical Officers in charge of Health Stations in Manila will report, in addition to the salaries and wages of themselves and their employees, the transportation expenses and automobile or bicycle allowances, the rent of building, if any, the supplies

issued or bought by them, postage stamps used, the rental of telephones, sewer services, electric current used, and any repair work ordered.

E. The different classifications of expenses and their corresponding classification letters, as at present used by this office, are given in Exhibit C for the guidance of all concerned. *The amounts for each of the different nature or purpose of expenses incurred by your Division or Office should be given one by one in every voucher or financial report, to be submitted, to conform with the classifications used by the Service.*

F. Estimated expenditures and incomes and collections, for any period, the report for which is required, may be made if necessary. Or, the report, as required in paragraph 5 of Circular P-43 may be modified so as to cover a standard financial report for a ten-day period, but the statement of the actual amounts should be submitted as required in paragraph C of this Circular, to supplement the standard financial report, or the report of estimated amounts.

In case any over-estimates or under-estimates are later found, in any report already submitted, adjustments of the discrepancies, may be embodied in the subsequent report, under the heading "adjustments," and giving enough explanation to identify the items that are being adjusted. (See Exhibit B, under "adjustments.")

G. Arrangements should be made so that all reports corresponding to each ten-day period, are received at the Central Office on the date of closing of the books for that period; that is, on the 10th and 20th of the month, and on the fifth of the succeeding month. If mail facilities would not make it practicable to have reports of actual amounts of expenditures arrive on time, the standard financial report as given in paragraph F may be submitted to be supplemented later by the actual report, or by adjustments as explained in the next preceding paragraph.

For the purpose of the proper preparation by this Service of estimates of appropriation for 1923, the following instructions are also issued:

H. During the month of June, 1922, an estimate of expenditures for your District, Hospital, Division, or Office, to be required for 1923, chargeable to the Insular Funds of the Service, should be prepared. This statement should reach the Central Office by not later than July 15, 1922. Each item of the estimates for 1923, should also give the corresponding amount spent from January 1 to June 30, 1922 (see Circular T-43,

dated May 22, 1921 for sample of the report required). The estimates for 1923 should be supported by a statement showing how the figures were arrived at. This is especially required for amounts shown in lump sums. If the estimated amount for any item of estimate is more than double the expense for the first half of the year the increase should be briefly explained. These requirements should be fully observed for individual items of the estimates.

If by reason of mail facilities, this report has to be prepared earlier than June so as to insure reaching the Central Office by July 15, 1922, the expenses for 1922 herein required, may include only the actual amounts spent up to April 30, 1921, and this fact duly explained in the report. In this case, if the estimated expenses for 1923 are more than three times the expenses up to April 30, 1922, the increase should also be briefly explained. Further explanations of individual items of the estimates should be furnished, if necessary, so as to convey a clear idea of the purpose thereof, giving facts to show why the items requested cannot be reduced.

J. If any public works in connection with your Division or Health District, are contemplated for next year, to be charged to Insular Funds, these should be submitted separately from the General Estimates, and should be grouped under the three headings, constructions, alterations, and repairs. Explanations on the estimates for public works should show the necessity therefor, the extent of the project, and whether the request is an additional amount to a former appropriation, in which case the percentage of work completed should be stated, together with whatever details that would show the scope of the work accomplished and the expenses already incurred.

I. A preliminary statement should accompany the estimates for 1923 in order that a complete data could be obtained on the following points:

(1) The results obtained or works accomplished with the expenses shown for 1922. This is very essential for the information of the Legislature.

(2) The plans involved in the estimates for 1923; new activities, improvement of the service, and data which will give a thorough idea of the operation of the office concerned.

(3) Economy obtained in the estimates.

As sample of the information required in the three preceding paragraphs is given in the explanatory notes given the budget

for 1922 as regards the Philippine Health Service which is copied below:

In the City of Manila, where hygiene and sanitation occasion the Insular Government an expense of about ₱1,000,000 a year, the Health Service made, during the first half of the current year, 100,452 vaccinations against smallpox, 9,271 vaccinations against typhus, and 6,281 against cholera. It maintained vigilance against bubonic plague, 46,007 rats having been taken from various places within the city for their examination by the Bureau of Science. It investigated 3,423 applications of licenses for restaurants, it took 4,227 specimens of water for bacteriological examination, it disinfected 58,695 houses and places, its nurses have made 46,280 visits in 44,794 houses in order to give instructions concerning sanitation and hygiene, and the customary inspections have been made in connection with sanitary engineering. Its sanitary stations rendered medical and surgical service to the poor and to pupils of the public schools. Recently it opened two clinics for secret diseases and a section of epidemiology. San Lazaro Hospital has accepted patients suffering from contagious diseases, lepers, insanes, and invalids: the average number of patients has been 805 a day during the period stated.

In the provinces vaccinations have been carried out systematically by six vaccinating parties, besides the vaccinations made by the local officers of the Health Service, 1,240,165 vaccinations against smallpox having been made during the period of six months, referred to above. Vaccination is completed in the Provinces of Cagayan, Isabel, Nueva Vizcaya, Ilocos Norte, Ilocos Sur, La Union, Sorsogon, Masbate, Subprovince of Apayao, Abra, and Samar, and in the way to completion in the Provinces of Leyte, Nueva Ecija, Cebu, and Pangasinan. Likewise, 134,042 vaccinations against cholera and a smaller number of vaccinations against typhus have been carried out. The measures taken to being under control the propagation of epidemics have been effective and the campaign has been continued to provide the public with pure drinking water and with sanitary privies that are adapted to local conditions as well as the instructive campaign in general by means of public lectures. At the Baguio hospital there was an average of 27 patients a day and 1,865 treatments in its clinics have been made. At the Culion Leper Colony an average of 4,822 lepers have been maintained; 300 of them have received the modern treatment against leprosy, a treatment that is being given to the largest number of patients possible.

Although larger by ₱111,678 than the amount available this year, the total appropriation asked for 1922 for the Health Service is ₱188,816 less than that originally authorized for 1921. Under salaries and wages the amounts suppressed by the Emergency Board are again introduced for vaccinators (₱46,800) and for physicians and temporary employees (₱17,260), and, besides, a larger number of employees and laborers are provided for the Culion leper colony. The Health Service is proposing to display more activity in the matter of segregating lepers and applying treatment more extensively. Hence the increases in amounts of the various items; under "miscellaneous services" to repair and build cottages in concentration camps for lepers in the provinces; under "freight, express, and delivery service" for the transportation of medicines, foodstuffs, and

other materials to Culion; under "treatment of leprosy" for salaries of surgeons, chemists, nurses, and helpers, their traveling expenses and per diems while in Culion, instruments, medicines, and drugs; under "contributions and gratuities" on account of the larger number of lepers (700 more) who should be awarded gratuities in Culion; under "illumination and power service" on account of the higher rates charged for electric current and on account of a larger consumption; under "traveling expenses of persons not Government employees," on account of the transportation of lepers and relatives who may visit them. Likewise, a larger amount is provided for "traveling expenses of personnel" on account of the larger number of vaccinators that will be employed during the next year and also in order to allow health officers to make the adequate inspections of their districts and to enable them to carry out sanitary educational propaganda. The amount of ₱2,000 is provided to pay the value as per contract of a private lot in Chindonan Island which is included in the Culion reservation. The aid to the special Provinces of Mindanao and Sulu has been increased this year with an additional amount of ₱16,000 granted by the Emergency Board. A little increase is further asked for this item in 1922 in order to cover the expenses incident to the nurses' school in Zamboanga.

These instructions are given early while the year has just begun, in order that complete data may be secured by all concerned.

As a final instruction all officers and employees are enjoined to observe the strictest economy in the expenditures of public funds. Do not incur heavy, unusual, or extraordinary expense. Our appropriation for 1922 is very much less than that of 1921. Do not hire automobiles or other costly means of transportation whenever other cheaper means can be availed of without detriment to the public service. Such heavy expenditures can only be incurred at the personal risk of the interested party. (See also Circulars S-41, T-27, and T-31, and paragraph 462 of the Philippine Health Service Manual.)

Also, full compliance with the provisions of this Circular should be observed, and strict accountability for the rendition of the reports will be required of all officers and employees concerned, failure to comply with which may result *in the withholding of their salaries, or requiring the responsible officers or employees to pay from their own private funds any official obligations which have not been duly reported.*

V. JESUS  
Director of Health



## Exhibit A (Circular U-7)

*Statement of salaries and wages of the San Lazaro Hospital for the period from January 10 to January 20, 1922, inclusive*

Names	Designation	Period of service	Rate of pay	Salaries a	Wages b	Commutation or allowances a-2	Total amount	Remarks	
								Column for central office	

*Statement of salaries and wages of the Health Station No. 2, Meisic, for the period from January 1 to January 10, 1922, inclusive*

Names	Designation	Period of service	Rate of pay	Salaries a	Wages b	Remarks	
						Column for Central Office	
Dr. F. Arenas .....	Senior Medical Inspector ..	January 1-10	P333.33	P107.52	.....		
Pablo Tiano .....	Assistant Sanitary Inspector	"	60.00	19.35	.....		
C. Manago .....	Laborer .....		40.00	.....	P12.90		

NOTE: The columns should be duly totalized.

**Exhibit B (Circular U-7)**

*Statement of miscellaneous expenses of the Culion Leper Colony for the period from January 21 to January 31, 1922, inclusive*

Names of creditors	Nature of expenses	Accounts	Classification	Remarks	
				Central office	Central office

**SUMMARY OF EXPENDITURES**

*Statement of miscellaneous expenses of the Vaccinating Party No. 5, Baybay, Leyte, for the period from January 1 to January 10, 1922, inclusive*

Names of creditors	Nature of expenses	Accounts	Classification	Remarks	
R. Peña.....	Transportation of self....	P65.00	c		
R. Peña.....	Postage stamps.....	2.00	e-1		
R. Peña.....	Telegram.....	1.60	e-3		
C. Fidel.....	Transportation.....	4.50	c		
C. Fidel.....	Cargador for Government supplies.....	0.20	d		
F. Flores.....	Transportation of self....	3.00	d		
D. Prado.....	Transportation of self....	3.50	c		
	Total.....	79.80			

**SUMMARY**

Traveling expenses c.....	P76.00
Cargador (freight) d.....	.20
Postage stamps e-1.....	2.00
Telegram e-3.....	1.60
Total .....	79.80

*Statement of miscellaneous expenses of the 31st Health District, Leyte,  
from February 21 to February 28, 1922*

Names	Nature of expenditure	Amounts	Classification	Remarks
A. Dasmariañas.....	Transportation on inspection.....	P1.50	c-2	
A. Dasmariañas.....	Per diems.....	4.50	c-2	
Fernandez Hermanos.....	Trip to Manila.....			
Provincial Treasurer of Leyte.....	Transportation of DHO.....	20.00	c-2	
Provincial Treasurer of Leyte.....	Conduction of lepers.....	10.00	m-2	
Provincial Treasurer of Leyte.....	Subsistence of lepers confined.....	35.20	g-6	
<i>Adjustments</i>				
Provincial Treasurer of Leyte.....	Subsistence of lepers for February 10 to 20, 1922, over-estimated.....	2.80	g-6	
	Total.....	114.15		

## SUMMARY

Transportation of District Health Officer and per diems.....	P71.75
Conduction of lepers.....	10.00
Subsistence of lepers.....	32.40
Total .....	114.15

*Notes for Exhibit B.*—Each creditor to whom a separate settlement by the Philippine Health Service will be made should appear in the list. In case of traveling expense vouchers, only the name of each claimant who submits a voucher, will be given. In case of Provincial or Municipal bills, only the name of the Province, or Municipality that submits bill to the Philippine Health Service, will be shown as creditor. For each creditor, the different nature of expense should be given separately, together with the amount corresponding thereto, the nature of purpose of each expense, being the basis from which the classifications of the expenditures is taken.

## Exhibit C (Circular U-7)

## PHILIPPINE HEALTH SERVICE

*Budget and Operation Accounts*

Classification	Nature of Expenses
a	Salaries.
a-1	Bonuses on salaries.
a-2	Subsistence, quarters, and laundry.
a-3	Additional 10 per cent on salaries on account of Culion Service of Doctors.
a-4	Sursalaries to District Health Officer for special provinces.
a-5	Salaries chargeable to lump sum appropriations.
a-?	(a) Salaries of employees operating Philippine Health Service automobiles.
a-?	(a) Salaries of employees operating Philippine Health Service ambulances, trucks, and motorcycles.
b	Wages.
b-1	Bonuses on wages.
b-2	Subsistence, quarters, and laundry for laborers, etc.
b-5	Wages chargeable to lump sum appropriations.
b-?	(a) Wages of employees operating Philippine Health Service automobile.

*Budget and Operation Accounts—Continued*

Classi- fication	Nature of Expenses
b-?	(t) Wages of employees operating Philippine Health Service ambulance, trucks, and motorcycles.
c	Traveling expense of personnel (in general).
c-1	Traveling expense of the Director, Assistant Director, and Chiefs of Divisions.
c-2	Traveling expense of District Health Officers and Acting District Health Officers.
c-3	Traveling expense for cholera and other epidemic diseases.
c-4	Traveling expense for vaccination purposes.
c-5	Traveling expense from and to U. S. A.
c-6	Traveling expense for investigation of lepers.
c-7	Street car tickets.
c-8	Hire of carromatas and carretelas at City of Manila.
c-9	Auto, motorcycle, and bicycle allowances.
d	Freight, express, and delivery service.
d-1	Supplies shipped by Property Office.
d-2	Supplies shipped for cholera purposes.
d-3	Supplies shipped for vaccination purposes.
d-4	Supplies shipped for leper effects.
d-5	Supplies shipped for Culion Store.
e	Postal, telegraph and telephone and cable service.
e-1	Postage stamps.
e-2	Telegram and cablegram sent by Central Office.
e-3	Telegram sent by field officers.
e-4	Money order fees.
e-5	Rental of Post-office Box.
e-6	Rental of telephones.
f	Illumination power service.
f-1	(t) Current for trucks.
f-2	Electric lighting.
f-3	Gas consumption (in Manila only).
g	Miscellaneous Service.
g-1	Bond of officers and employees.
g-2	Laundry hospital.
g-3	Subscription to periodicals and publications.
g-4	Educational exhibits and campaign.
g-5	Incidentals.
g-6	Subsistence of lepers.
h	Rental of buildings and grounds.
h-1	Rental of buildings proper.
h-2	Rental of buildings and grounds for leper camps.
i	Consumption of supplies and materials.
i-1	Office supplies.
i-2	Medicines, medical and surgical supplies.
i-3	Miscellaneous supplies.
i-4	(a) Gasoline for automobiles.
i-4	(t) Gasoline for ambulances, trucks, and motorcycles.
i-5	(a) Materials for automobiles.

*Budget and Operation Accounts—Continued*

Classi- fication	Nature of Expenses
i-5	(t) Materials for ambulances, trucks, and motorcycles.
i-6	Subsistence supplies except rice, meat, sugar, coffee, and milk.
i-7	Clothing and beddings.
i-8	Fuel and coal.
i-9	Disinfectants.
i-10	Ice for virus.
i-11	Miscellaneous supplies for vaccination work, such as antiseptic supplies and dressings.
i-12	Rice.
i-13	Meat.
i-14	Sugar.
i-15	Coffee.
i-16	Milk.
j	Printing and binding reports, documents and publications.
j-1	Printing quarterly reports.
j-2	Printing annual reports.
j-3	Printing bulletin and publications.
k	Cash contributions and gratuities (other than to local governments).
k-1	Gratuities proper.
k-2	Leper service in lieu of gratuities.
m	Travel expenses of persons not Government employees.
m-1	Charter boats.
m-2	Transportation in connection with conduction of lepers in the provinces.
n	Maintenance and repair (contract payments only).
n-1	Repairs of equipment.
n-2	(a) Repairs of automobiles.
n-3	(t) Repairs of ambulances.
n-4	(t) Repairs of trucks and motorcycles.
p	Outlays (purchase of equipment).

## PHILIPPINE HEALTH SERVICE

MANILA, *February 15, 1922*CIRCULAR }  
U-8 }*To all District Health Officers and District Inspectors:*

General authority has been granted by the Honorable, the Secretary of Public Instruction in his 1st Indorsement of January 20, 1922, to charge expenses in connection with the use, by Health Officers and their assistants, of automobiles, ambulances or other conveyances, purchased from Provincial Health

Funds, to the respective local health funds of the provinces. Said authority is quoted below:

1ST INDORSEMENT

*January 20, 1922*

Respectfully returned, thru the Insular Auditor, to the Director of Health, hereby granting a general approval, under section 1013 of the Administrative Code, to charge the cost for the maintenance and operation of automobiles or other conveyances purchased from provincial health funds to the respective local health funds, provided that there are sufficient funds available, and provided, further, that such expenditures will not in any way reduce the necessary current expenses to carry on the health activities.

(Sgd.) ALEJANDRO ALBERT

*Under Secretary of Public Instruction, In Charge*

In view of the above, District Health Officers of Provinces possessing automobiles or other conveyances purchased from Provincial Health Funds, should limit to the minimum their expenditures on account of such transportation so that sufficient money will be available for other items of expenses necessary to carry on efficiently the health activities of their respective provinces. In case the condition of the health fund in any one province will not permit of expenses for automobile transportation without impairing necessary health activities, no expenses on account of automobile hire should be incurred by the District Inspector or District Health Officer concerned without securing prior authority from this office. In cases of emergency, items of automobile hire will be supported as usual by the data required in Circular T-31, paragraph 3.

V. JESUS

*Director of Health*

PHILIPPINE HEALTH SERVICE

MANILA, *February 20, 1922*

CIRCULAR }  
U-9 }

*To all District Health Officers and other Health Officials concerned:*

In connection with Circular U-5, dated February 3, 1922, of this Service, the attention of all concerned is invited to the following Provincial Circular (unnumbered) of the Chief, Executive Bureau:

*February 2, 1922*

**SUBJECT:** *Health personnel, reduction of 15 per cent of expenses for salaries and wages not applicable to*

In connection with the unnumbered circular of this office dated December 28, 1921, regarding 15 per cent reduction of expenses for salaries, Provincial Boards of provinces under the jurisdiction of the Executive Bureau are hereby advised that according to information just received from the Governor-General, it is not the desire of His Excellency to have the health work in the provinces curtailed. This office fully concurs in this desire of the Governor-General and hereby requests every Provincial Board to see to it that any reduction in the number of the health and sanitation employees as well as in their compensations is made as a last resort; and only when the efficiency of the service will not be impaired.

Health officers are requested to make all efforts to obtain better allowances for the operation of the health organization in provinces and for carrying out existing plans.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, February 21, 1922

CIRCULAR }  
U-10 }

*To all Medical Officers in charge of Health Stations in the City of Manila and others concerned:*

Medical Officers in charge of Health Stations in the City of Manila and others concerned are hereby enjoined to comply strictly with the following rules in connection with the actual typhoid campaign:

1. Report promptly to the nearest Health Station cases or suspected cases of typhoid fever, confirmed or not by laboratory examination. Chiefs and superintendents of hospitals, Government officers and employees are requested to make such reports personally, by phone or in writing.

2. Detection of cases or suspected cases by regular house-to-house inspection. Health officers and employees in the Division of Sanitation of Manila are strictly held responsible for the compliance of this rule.

3. Compulsory isolation of patients in hospitals when conditions at home are not satisfactory and when no physician is responsible for his or her care and treatment.

Cases of typhoid in general hospitals must be isolated from other patients. Concurrent disinfection should be strict in cases cared at home.

4. Cases attended at home by physicians shall be reported to the Director of Health at the termination thereof (recovery, death, or removal to hospital). In case the physician discontinues to attend the patient, previous report of his intention to withdraw from the case shall be made to the Director of Health or the Medical Officer of the district where the patient resides.

5. Vaccinations of all contacts and of persons living around the residence of the patient shall be made without delay.

6. Specimens from contacts and carriers, stool and blood, should be taken and sent to the Bureau of Science for examination.

7. A thorough daily disinfection of infected premises and surrounding places shall be continued until five days after the termination of cases.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, *February 20, 1922*

CIRCULAR }  
U-11 }

*To all District Inspectors and District Health Officers:*

It has been learned by this office that some officers of the Service have the impression that the normal death rate which should be taken as basis for the health index in the health barometer instituted in Circular T-69 is that already given in the sample appended to it. This circular is issued to dispel this wrong impression, and it is hereby ordered that upon renewal of such charts which had been prepared on this belief, correction be made so as to take as basis for the health index the normal death rate which pertains to each locality, municipality, or province as the case may be. This normal death rate for each municipality or province may be had by obtaining the death rate *excluding epidemics* for the last five years of the municipality or province, and the same should be followed and indicated in the chart similar to the one furnished in Circular T-69.

V. JESUS  
*Director of Health*



## PHILIPPINE HEALTH SERVICE

MANILA, *February 23, 1922*CIRCULAR }  
U-12 }

*To all District Inspectors, District Health Officers, Presidents of Sanitary Divisions, District Nurses, and Sanitary Inspectors:*

Sanitarians and medical authorities are agreed that public lectures on sanitation and health problems are the most effective medium of promoting sanitary conditions and awakening the sanitary consciousness of the people. Section 1006(m) of the Administrative Code also prescribes as a duty of Presidents of Sanitary Divisions to give public lectures on medical and sanitary subjects of local importance once a year or more frequently if necessary. This office believes that more active campaign for public health should be made thru public lectures and conferences than heretofore. For this reason, you are hereby directed to give systematic and methodical instruction on sanitation and hygiene to the public on every Saturday commencing April 1, 1922, by means of public conferences in the local dialect, either directly or thru an interpreter. An outline of the topics for each conference or lecture to be given for each specific day is attached. The number of topics outlined cover a schedule for the whole year; therefore, the first conference should be given without failure on April 1st and every Saturday thereafter until the end of the year.

The coöperation of the insular, provincial, and municipal authorities, as well as that of private institutions and organizations, should be requested to attain the end desired thru this humanitarian movement.

A report of the number of conferences given every Saturday and the names of the barrios or towns where the conferences took place should be submitted to this office at the end of every month by District Health Officers; and at the end of the year a comprehensive statement in a scientific form should also be prepared and submitted, showing the success accomplished thru this method of public sanitary education.

V. JESUS  
*Director of Health*

## POPULAR TOPICS FOR PUBLIC HEALTH INSTRUCTION

*April 1*

1. *Philippine Health Service*.—Organization in brief. Functions and Duties. Prophylaxis and Immunization, i. e., maintenance of health, prevention from diseases, and postponement of premature deaths. Appeal to the public to coöperate with the Service to carry out its aims; also to obey the laws, rules, and regulations pertaining to public health, and all municipal sanitary ordinances in force or may, from time to time, be enacted to meet the exigencies of the community.

*April 8*

2. *How to maintain health*.—General and personal hygiene. Importance of cleanliness, general and personal. Cleanliness of back yards and premises. Proper disposal of human waste, garbage, and rubbish.

*April 15*

3. *Domestic Sanitation*.—"Cleanliness," the keynote. Location, drainage, and partitions. Light and ventilation. Bath and toilet facilities. Importance of sleeping with open windows—dangers from ill-ventilated room.

*April 22*

4. *Personal hygiene*.—Care of mouth and teeth. Bathing—benefits from rest, sleep. Calisthenics. Clothing. Care of bowels, and organs of special senses such as eyes, etc. Danger from coughing with open mouth and sneezing without handkerchief.

*April 29*

5. *Isolation and quarantine*.—Dangers of contact with sick persons. Advisability of reporting to health authorities any disease occurring in each household.

*May 6*

6. *Disinfection—main object*.—Disinfection of human excreta and personal belongings of one affected with contagious disease.

*May 13*

7. *Medical attendance*.—Its necessity in case of disease for the family and for the public. Economic value when health is safeguarded by medical advice.

*May 20*

8. *Significance of public coöperation*.—Advisability of immediate notification of, at least, any communicable disease case, by any one in the family or in the neighborhood. Report of births and deaths as indices in the standard of civilization of a given locality.

*May 27*

9. *Food sanitation*.—What constitutes "balanced" food? Importance of vitamins. Food poisoning. Disease germs and disease-producing food.

*June 3*

10. *Milk*.—Its nutritional and caloric value. Constituents of the same regarding butter fat, solids not fat, etc. What is meant by pure, certified, or pasteurized milk? Is boiled milk safe?

June 10

11. *Milk-born diseases, in general.*—Improper milking, careless handlings and contamination by dirty utensils. Adulteration and fermentation. Prevention of diseases due to milk infection. Nutritional importance of buttermilk.

June 17

12. *Beriberi, infantile and adult.*—Symptoms, prevention, and treatment—both mother and infant. Importance of the disease from an economic standpoint. Its significance (infantile form) also in the infantile mortality record. Advices to the prospective mothers and parturient women regarding the ingestion of foods or food products containing an abundance of the antineuritic vitamine (water-soluble-B).

June 24

13. *Infant feeding and care.*—Methods of feeding and nature of sound infant food. Hygiene of babies—fixing the cord, nursing, nipples, bottles, fresh air, bathing, cleanliness, apparel, etc.

July 1

14. *Disease-producing germs.*—Mention the common ones. How do they produce the disease? In general, how do we acquire the disease and how can we avoid its development.

July 8

15. *Infection by direct and indirect contact with a contagious case.*—Danger in overcrowding especially during town "fiestas." How do we avoid such dangers?

July 15

16. *Peculiar habits and costumes in each locality?*—Dangers from the practice of "cañaos," of misleading beliefs, and superstitions.

July 22

17. *Care of patients with communicable disease.*—Disposal of nasal, skin, throat, bladder, and bowel discharges. Disinfection of patient's clothings and hands of attendant. Isolation of patient's mess equipments. In general, how can one avoid contamination, when necessarily in contact with the patient.

July 29

18. *Water supply.*—What constitutes potable water? Artesian well and sanitary dug well. Faucet water. Spring and surface wells. Location.

August 5

19. *Water pollution.*—Animal or human;—at its source or in its course? Water-born disease. How can the germs in the water be rendered harmless, at least, non-disease producing? Boiling and other adequate methods of water purification.

August 12

20. *Soil pollution.*—Decomposition of organic matter. Improper disposal of manures and human wastes. Diseases that may be obtained from soil pollution and how can one prevent them.

*August 19*

21. *Sanitary conveniences*.—Necessity of having sanitary toilet Antipolo system. Dangers from having improper disposal of feces. Simple methods of rendering human excreta innocuous.

*August 26*

22. *Disease transmission*.—Mechanical and biological transmitters. Description in simple language, and illustration of how a disease is transmitted thru food, drinks, uncleaned habits, personal contact, droplets in the air, dust, bare-footedness, and other agencies. Examples and short description of each.

*September 2*

23. *Domestic animals*.—Hogs, dogs, horses, etc. in relation to public health and in the transmission of parasitic and pathogenic germs.

*September 9*

24. *The rôle of flies, mosquitoes, and other insects in the transmission of diseases, blood, intestinal, and skin infection, etc.*—How is transmission accomplished—illustration and short description of infective agents. Their breeding places. How can they be exterminated.

*September 16*

25. *Malaria*.—Illustration of the parasite, method of transmission, important symptoms, means of prevention, and cure.

*September 23*

26. *Rabies*.—How contracted. Prevention and Pasteur treatment. Illustration.

*September 30*

27. *Cholera*.—Cause, mode of transmission, and prevention.

*October 7*

28. *Typhoid fever*.—Cause. How contracted and how can it be prevented.

*October 14*

29. *Dysenteries, amæbic and bacillary*.—Description and termination of each if untreated. Prevention and treatment.

*October 21*

30. *Diphtheria*.—Location of infection, principal signs, how contracted, and how prevented, etc.

*October 28*

31. *Tuberculosis*.—Early symptoms, mode of infection, curability, etc.

*November 4*

32. *Whooping cough*.—Propagation and prevention.

*November 11*

33. *Influenza*.—Pneumonia, propagation and prevention.

*November 18*

34. *Plague*.—Bubonic and pneumonic. Mode of transmission. Rat problem and rat campaign.

November 25

35. *Leprosy*.—Importance of segregation. How contracted, how prevented, and how may it be treated.

December 2

36. *Smallpox, chickenpox, and measles*.—Source of infection and method of prevention.

December 9

37. *Vaccination*.—Cholera, typhoid, smallpox, toxin-antitoxin, etc.

December 16

38. *Parasites*.—Intestinal, such as round worms, tape worms, hookworms. Mode of infestation and method of prevention. Skin, such as tinea cruris and tinea circinata, dhobie itch, barber itch, etc.

December 23

39. *Carriers as potential dangers to community*.—Detection and treatment.

December 30

40. *Mental hygiene*.—Puberty and sex hygiene. Venereal diseases such as syphilis and gonorrhea—the common cause of disabilities, physical defects, and other dreadful subsequent conditions.

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## PHILIPPINE HEALTH SERVICE

MANILA, February 28, 1922

CIRCULAR }  
U-13 }

*To District Inspectors, District Health Officers, and Presidents of Sanitary Divisions:*

Sufficient experimentation having been made with regard to a mixed vaccine of cholera and typhoid fever to show that same can be used safely to the advantage of the Health Service and the public, it has been decided to manufacture a mixed vaccine of cholera and typhoid, the general use of which is now permitted. It has also been proven that cholera vaccine with concentration of 4,000 million may be adopted for general use, and accordingly, cholera vaccine at this concentration has been ordered.

It is hereby ordered that hereafter requisitions for vaccine must contain specific statement as to the kind of vaccine desired, that is, whether the requisition is for simple cholera or typhoid vaccine, or for mixed cholera and typhoid vaccine.

V. JESUS  
Director of Health

## PHILIPPINE HEALTH SERVICE

CIRCULAR  
U-14 }

MANILA, March 1, 1922

*To all Chiefs of Divisions, Offices and Hospitals, and others concerned:*

There is enclosed herewith outline for the preparation of the annual report, and it is directed that annual reports which are still being prepared or will be prepared in the future be made in accordance with this outline.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

## OUTLINE FOR THE PREPARATION OF THE ANNUAL REPORT

I.—SYNOPSIS OF THE YEAR. (General remarks on situation, progress accomplished, shortcomings, conclusions, and recommendations.) By the Director of Health.

## II.—OUTLINE FOR TERRITORIAL DIVISIONS:

- A. Sanitation of Manila—by the Chief of the Division.
- B. Sanitation of Provinces—by the Chief of the Division.
- C. Sanitation of Mindanao and Sulu.

Divisions A, B, and C will prepare their respective reports in full accordance with the following plan—

## (a) Vital Statistics—

- 1. Population as of July 1.
- 2. Birth rate.
- 3. Marriage rate.
- 4. General death rate.
- 5. Infant mortality—

(a) Under 1 year of age.

(b) Under 6 years of age.

Compared, as far as possible with previous 5 years.

## (b) Epidemiology—

- 1. Cholera.
- 2. Typhoid.
- 3. Dysentery.
- 4. Smallpox or others.

Statement of facts (figures); comparison with previous 5 years; interpretation; preventive measures—campaign of immunization.

## (c) Prevailing diseases (not classified as epidemic)—

- 1. Those influencing general death rate.
- 2. Those influencing infant death rate.

Headings (1) and (2) to be discussed with regard to the following points—

(aa) Statement of facts (crude figures).

(bb) Interpretation of facts.

(cc) Rat, mosquito, and fly extermination.

(dd) Summary of situation.

II.—OUTLINE FOR TERRITORIAL DIVISIONS—Continued  
Divisions A, B, and C. etc.—Continued

(d) Medical relief—

1. Provincial and penal hospitals (for Divisions B and C only).
2. Dispensaries.
3. Public Health Nursing and Social Service.

(e) General Sanitation—

1. Inspections.
2. Nuisances abated (specification of).
3. Sanitary orders (number issued—complied with).
4. Penalties imposed (yearly aggregate amount).
5. Water supplies—

(a) Natural sources.	<div style="display: inline-block; vertical-align: middle; font-size: 3em; line-height: 1;">}</div> <div style="display: inline-block; vertical-align: middle;">Survey of—Causes of pollution.</div>
(b) Water works.	
(c) Artesian wells.	
(d) Dug wells.	
	Methods of purification employed.
	New supplies—Supplies permanently condemned.

6. Markets and slaughterhouses—Improvement, if any, in number and condition.
7. Garbage—Methods of collection and disposal.
8. Sewage disposal—Progress attained.
9. Licensed businesses. (Action taken on applications therefor.)

III.—OUTLINE FOR TECHNICAL DIVISIONS AND SUBDIVISIONS:

D. Division of Hospitals and Laboratories—<sup>1</sup>

(a) Hospitals—

1. Insular (principally San Lazaro and Bilibid).
2. Provincial.
3. Penal.

General data—

- (aa) Proposed.
- (bb) Under construction.
- (cc) Completed.
- (dd) In operation at end of year.

Detailed statement per unit—

1. Location.
2. Capacity.
3. Morbidity.
4. Mortality.

(b) Dispensaries—

1. Morbidity.
2. Prevailing diseases.

<sup>1</sup> Until Division D (Hospitals and Laboratories) is legally permanently established, headings (a) (excepting insular hospitals), (b) and (c) must be included under the heading (d) Medical Relief as part of the annual report of Divisions B Provinces, and C Mindanao and Sulu.

## III.—OUTLINE FOR TECHNICAL DIVISIONS AND SUBDIVISIONS—Continued

## D. Division of Hospital and Laboratories—Continued

## Special clinics—

1. Venereal diseases.
2. Yaws.
3. Tropical ulcer or others.

} Full report of activities.

## (c) Laboratories—

1. Proposed.
2. In operation at end of year.
3. Nature of examinations performed.
4. Total examinations performed.
5. Income.

## (d) Culion and the Treatment of leprosy.

## E. Division of General Inspections (by the Assistant Director).

## (a) Public Health Nursing—

1. Maternity and Infant Welfare.
2. School Inspections.

} 1. Health Centers.  
2. Field work.  
3. Other activities.

## (b) Pure Food Board and Inspection—Transactions during the year.

## (c) Examining Boards—

1. Masseurs.
2. Embalmers.

## (d) Special Committees—

1. On Tuberculosis.
2. On Insane.
3. (a) On Leprosy Investigation.  
(b) On Leprosy Diagnosis.  
(c) On Leprosy treatment.
4. Civil Service Physical Examination.

} a. Investigation.  
b. Disposition.

## (e) Publicity Activities—

1. Monthly Bulletin.
2. Scientific publications.
3. Popular Education (Health exhibits, healthmobile, special bulletins, leaflets, posters, lectures, conferences).
4. Miscellaneous.

## (f) Cemeteries.

## F. Sanitary Engineering (by the Sanitary Engineer)—

## 1. Inspections—

- (a) Number.
- (b) Compared with previous year.

## 2. Licenses—

- (a) New buildings.
- (b) Repairs.

## 3. Plumbing—

- (a) New.
- (b) Repairs.

## 4. Prosecutions and convictions.

## 5. Projects and plans presented. Statement of the work accomplished.



## IV.—1. ADMINISTRATIVE OFFICE (By Chief Clerk and Assistants):

- (a) Clerical Section.
  - (b) Accounting Section.
    - Financial statement—
      - 1. Appropriation—
        - (a) Insular.
        - (b) Provincial.
        - (c) Municipal.
      - 2. Expenditures.
    - (c) Property Section.
  - 2. Official Roster (as for December 31).
  - 3. Legislation—
    - (a) Proposed.
    - (b) Approved.
    - (c) Pending.
- Laws, ordinances, circulars, etc., passed or issued during the year.

## V.—VITAL STATISTICS (Statistical tables—By Chief and Assistants).

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 PHILIPPINE HEALTH SERVICE

MANILA, March 3, 1922

 CIRCULAR }  
 U-15 }

*To Medical Officers in charge of Health Stations, Manila, District Inspectors, District Health Officers, Presidents of Sanitary Divisions, and others concerned:*

Clerical error having been committed in Circular U-13, it is hereby rectified that the concentration of pure cholera vaccine which has been experimented and is permitted for general vaccination use is *three thousand* million, not 4,000.

In connection with the use of the mixed cholera and typhoid vaccine, it must be stated that same should be used as routine work for the campaign against typhoid and cholera. One c. c. of the vaccine contains two thousand million cholera vibrios and five hundred million typhoid vibrios. Two injections at an interval of from 7 to 10 days constitute the ordinary dose, each injection being—

For persons under 5 years.....	$\frac{1}{2}$ c. c.
For persons from 5 to 10 years.....	$\frac{1}{4}$ c. c.
For persons from 10 to 16 years.....	$\frac{1}{2}$ c. c.
For persons 17 years or over.....	1 c. c.

Contradictions to injections are acute nephritis, women 3 months before and two months after childbirth and any kind of fever.

Certificates of vaccination with the statement of the kind of vaccine used and the dose given should be issued to each vaccinated person as usual.

The use of the mixed vaccine as a routine work does not mean to discontinue the use of the pure cholera or typhoid vaccines whenever it is found necessary or when especially requested.

V. JESUS

*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, *March 3, 1922*

CIRCULAR }  
U-16 }

*To the Medical Officers in charge of Health Stations, Manila,  
P. I.*

Pursuant to paragraph (f) section 938 of the Administrative Code of 1917, physicians in charge of the Manila health stations are hereby directed to comply with the following rules in connection with actual typhoid campaign:

1. To inject with typhoid vaccine (a) typhoid contacts, direct and indirect; (b) water carriers, kitchen employees, and dining-room attendants of hotels, restaurants, boarding houses, saloons, lemonade stands, ice cream parlors, and of other places wherein cooked food and drink is offered to public for sale; (c) officers and employees of the Government; (d) students of public and private schools, colleges, and dormitories; and (e) officers and employees of factories and commercial houses.

2. Mixed typhoid and cholera vaccine shall be used only to typhoid contacts who have not yet received complete prophylactic injection during the previous 12 months; otherwise, simple typhoid vaccine shall be injected.

3. Typhoid injection of officers and employees of the Government, officers and employees of factories and other private concerns, and of students in public and private schools, colleges, and dormitories, shall be made in three or more successive sessions, with interval of 7 to 10 days. In each session only one-third or one-fourth of the concerning persons in said institutions shall be injected.

4. Three successive injections are required for each person to be entirely immune against typhoid. Each person injected shall be given a typhoid vaccination card whereon shall be stated the dates when the three injections were made.

5. Typhoid vaccine and blank cards (typhoid certificates) shall be furnished by physicians in charge of health stations to private doctors who may require said supplies to vaccinate their clients and other persons who apply to be vaccinated by them.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, March 4, 1922

CIRCULAR }  
U-17 }

*To the Physicians in charge of Health Stations, Manila, P. I.*

In accordance with section 917 of the Revised Ordinances, City of Manila; and in order to have a more efficient sanitary supervision on the Manila water supply, medical officers in charge of the Manila health stations are hereby directed to enforce the following rules:

1. No person shall engage in the sale or distribution of water in the City of Manila until after a permit therefor has been obtained from the physician in charge of the corresponding health station. Said permit shall be issued free and it is renewable monthly. It may be revoked at any time, when the sanitary instructions are not duly observed, or the health conditions of the persons engaged in said business may endanger the public health.

2. No permit for said business shall be given to persons affected with communicable diseases, or who are carriers of cholera, typhoid, dysentery, and ankilostomum duodenade or who have not been vaccinated with typhoid and cholera.

3. There shall be in each health station of Manila, one list or book whereon shall be recorded the names, residences, ages, civil and health conditions, dates of physical and health examinations, of specimen taken and of granting of the permit.

4. The utensils that shall be used in the sale or distribution of water in Manila shall be as follows: an ordinary gasoline can, or other similar metal receptacle with an opening of about 10 centimeters in diameter, near one of the angles on the upper side thereof. Said opening shall have a cover attached to one side thereof with a hinge. On the middle part of said upper side of the receptacle shall be fixed the handle thereof, behind the cover of the opening.

5. All receptacles for water carriers shall be previously approved by the Director of Health or by his authorized representative.

V. JESUS  
Director of Health

## PHILIPPINE HEALTH SERVICE

MANILA, March 9, 1922

CIRCULAR }  
U-18 }

*To all Chiefs of Divisions, Hospitals and Offices, and Medical Officers in charge of Stations, District Health Officers, and others concerned:*

With this circular it is intended to impress upon all officials and employees of this Service concerned in the disposition or management of funds and in incurring of expenses, the necessity of observing in its strictest sense the policy at present being followed by the Government in connection with economy.

The Secretary of Public Instruction in his communication of February 23rd last stated that he cannot approve any salary increase for this year, pursuant to an agreement had by the Council of State. In his letter of the 8th instant, attention was again called to another letter of His Excellency, the Governor-General, addressed to the Department in which His Excellency desires to reduce the Government expenses to the minimum and to hold all funds that may wholly or partly remain unexpended subject to the action of the Council of State. Statement was also made in the same letter that the Council of State has agreed to have the most rigid economy followed in their respective Departments.

All concerned are enjoined to see that no salary increase for this year is recommended to this office as the same will not be favorably entertained even in the most exceptional cases. This shall be understood to apply not only to insular employees but also to those of the provinces. Officials of the Service may, if circumstances demand, recommend the employment of absolutely necessary personnel, but then only at the lowest possible salary at which their services can be obtained. It shall be the policy of this office in connection with the care of expenditures of funds, both insular and provincial, that no exceptions are made on account of the provinces claiming that they can afford to pay a salary higher than other provinces, as otherwise, prov-

inces which have not been able to make offers as high as others will be placed in an embarrassing position. District Health Officers should, therefore, exercise due care in offering salaries to new appointees so that the least possible expense is incurred. It is also desired that care be taken so that economy is made not only in connection with expenses for salaries of personnel but also in connection with all other expenses of the Government. In incurring expenses for supplies and equipments and in making requisitions, all officers herein concerned are directed to spend the least possible amount consistent with the efficiency of the service in order that this retrenchment policy may be successfully carried out. Subordinate officers and employees should be enjoined to exercise utmost care in the use of Government supplies and materials so that no wastage will occur but at the same time obtaining the highest efficient service possible. Party responsible will be required to pay for overdrafts.

The coöperation of all in this regard is earnestly requested.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, March 16, 1922

CIRCULAR }  
U-19 }

*To all District Inspectors, District Health Officers, Presidents of Sanitary Divisions, and others concerned:*

It is the purpose of this office to make an active campaign against yaws and such other ulcers that may exist in the Philippine Islands. To carry out this campaign, it will be necessary, of course, that information be obtained as to the extent of the morbidity from this kind of disease in every town of the Archipelago.

Accordingly, District Inspectors are hereby directed to obtain through District Health Officers, and these in turn through local health officers and employees, this information by barrios, and by sex and age, if possible.

The reports of this survey should be sent to this office not later than April 30th.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, March 15, 1922

CIRCULAR }  
U-20 }

*To the Physicians in charge of Health Stations, Manila, P. I.:*

Pursuant to sections 891, 893, and 905 of the Revised Ordinances of the City of Manila, Medical Officers in charge of the Manila Health Stations are hereby directed to enforce the following rules referring to the preparation and sale of "ice drops:"

1. No person shall engage within the City of Manila in the preparation and sale of *ice drops*, without having first obtained a permit for said business from the physician in charge of the corresponding health station.

2. No permit for said business shall be issued to persons who are effected with communicable diseases; who are carriers of typhoid, cholera, or dysentery; or who have not yet sufficiently been vaccinated against the first and second of said diseases.

3. Preparation of *ice drops* for sale shall be made only in places approved for said business by the Director of Health or by his authorized representatives; or in places approved for the preparation of ice-cream. Said places, the utensils used in the works, the working persons and the clothes they wear on during the work, shall entirely be clean and in good sanitary condition, and far from stables, toilets, and sites where domestic animals are located.

4. In the preparation, management, and sale of said *ice drops*, these and the wrappers thereof shall not be touched by the hand of the working persons, but by previously sterilized instruments.

5. Sample of *ice drops* shall be sent weekly or oftener if necessary to the Bureau of Science by the Physicians in charge of the corresponding station, for the examination and determination of its fitness for human consumption.

6. Infraction of the provisions of sections 3 and 4, and refusal of the owner to give samples of *ice drops* for examination, shall be sufficient cause for the revocation of the permit to engage in said business.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, *March 22, 1922*CIRCULAR }  
U-21 }

*To all Medical Officers in charge of Health Stations, Manila,  
and others concerned:*

In connection with Circular U-17 of this office dated March 4, 1922, the following requirements are made public relative to the sale or distribution of water in the City of Manila by water carriers:

1. Water carriers on their business shall wear clean clothes, have their finger nails closely trimmed and their hands entirely clean.

2. Water cans or containers shall be thoroughly clean while in use, and same shall be placed, if not carried by persons, on strictly clean carretelas of proportional size.

3. In collecting the water from artesian wells or other water sources, the container shall be placed open under the faucet of the well and let the water fall into the container directly without having any contact with hands or anything else. Once full, the container shall be covered and immediately placed in the carretela. Care should be taken that the cover or any part of the opening or of the interior of the container shall not be touched with fingers or anything else.

4. In distributing the water, the water carrier shall pour it directly from his container to the house container, and shall carefully avoid that his hands or anything else be placed in contact with water. Strainers and funnel shall not be used unless previously entirely sterilized.

5. Water containers shall be carefully washed every day immediately before being used with hot boiled water.

6. Water distributors using large tanks on trucks shall have their tanks provided with faucets and openings with proper covers permanently attached to it by adequate hinges. In collecting water, whenever possible, the tanks shall be placed open under the source's pipe, to receive directly the water supply without handling it by instrument or accessory apparatus. When this is not practicable, the process for getting the water from the main to the tank should be through water cans or containers treated and handled in the same manner as outlined in paragraphs 2, 3, and 5 of this circular. The distribution of

the water from the tank shall be subjected to the same precautions and requirements contained in this circular.

Medical officers in charge of Stations are directed to give instructions to water carriers for the proper observances of the above regulations and no permit shall be issued until they are sure that the applicant has familiarized himself with the said regulations. The permit should bear a statement that it is revokable at any time for nonobservance of the regulations herein established.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, *March 23, 1922*

CIRCULAR }  
U-22 }

*To Chiefs of Divisions and Offices, Philippine Health Service:*

In accordance with the provisions of section 564 of the Administrative Code and of Executive Order No. 13, of March 15, 1922, the office hours of the Philippine Health Service for the period from April 3 to June 15, 1922, inclusive, will be from 7.30 a. m. to 12.30 p. m. each working day, except Saturday when they will be from 8 a. m. to 1 p. m.

Each chief of division or office will arrange for sufficient personnel to be on hand until 4 p. m. each day to care for the official business requiring immediate attention, and medical officers in charge of health stations will so detail clerks and sanitary inspectors that the sanitary work in their districts will not suffer. Should the work at any time require all the office force on duty during ordinary hours (8 a. m. to 4 p. m.) in order to keep the work of the office up-to-date, the chief of division or office must arrange to meet such conditions.

This circular does not apply to hospitals the special character of which does not permit them to arrange the hours of work in conformity herewith.

V. JESUS  
*Director of Health*



## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-23 }

MANILA, *March 30, 1922*

*To Senior Surgeons, Surgeons, Assistant Surgeons, District Health Officers, Presidents of Sanitary Divisions, and others concerned:*

The Bureau of Civil Service has issued an announcement which reads as follows:

**EXAMINATION FOR SURGEON; AND FOR PROMOTION TO SENIOR SURGEON AND MEDICAL INSPECTOR MAY 10, 11, AND 12, 1922**

The Bureau of Civil Service announces an examination for commission as surgeon in the Philippine Health Service, to be held in Manila and Zamboanga on May 10, 11, and 12, 1922.

The present entrance salary is ₱1,800 per annum, with promotion, on further examination after three years' service, to the grade of senior surgeon. Officers when assigned to duty in hospitals may receive quarters and subsistence. As there are several vacancies at present, the chances of appointment of successful candidates are good.

Candidates for examination shall be natives of the Philippine Islands or citizens of the United States, shall be of good repute and character, and graduates of a reputable medical college.

They must not be less than 23 nor more than 32 years of age, and must have one year's hospital service or two years in professional practice before permanent appointment. An assistant surgeon of the Philippine Health Service whose age is more than 32 years and less than 50 years, and who, at the time, has served continuously for the 5 years last past, may be examined for appointment as surgeon. The applicant must exhibit his diploma or certified copy thereof to the Director of Civil Service at the time of filing his application for examination.

In addition to the information required by the form of application for examination furnished by the Bureau of Civil Service, the applicant shall furnish testimonials from at least two persons as to his professional and moral character, and shall also state, concisely, the several branches studied by him at the institution at which he received his general education, including his knowledge of general literature and of ancient and modern languages; the time when he began the study of medicine; the opportunities he has had of engaging in the practice of medicine, surgery and obstetrics, or of receiving clinical instruction; and whether he has been a resident physician or interne in a civil or military hospital and the opportunities he has had for doing public health work.

Physical examination of all candidates for examination will be conducted by a board of commissioned officers convened for the purpose by the Director of Health. Candidates failing in the physical examination will not be admitted to the professional examination. Candidates for the examination must present themselves for physical examination two days before the examination is held.

Any one of the following defects will be sufficient for rejection, viz.: Cachexia, or apparent predisposition to any constitutional disease; permanent defects of either of the extremities or articulations, including defects of gait, flat foot, badly bowed legs, knock-knees, unnatural curvature of the spine, impaired vision, colored blindness, chronic disease of the visual organs, epilepsy, insanity, chronic disease of the ears, deafness, chronic nasal catarrh, polpi, chronic ulcers or cicatrices of old ulcers likely to break out afresh, chronic cardiac affections, insufficient chest expansion, hernia, sarcocele, hydrocele, varicocele (unless slight), stricture of the urethra or rectum, fistula in ano, hemorrhoids, varicose veins in lower limbs (unless slight), stature less than 149.8 cm., or more than 187.9 cm., and any marked abnormality of speech or facial disfigurement.

The written or professional examination will consist of questions on: 1. Anatomy; 2. Physiology; 3. Chemistry; 4. Materia medica and therapeutics; 5. Practice of medicine; 6. Practice of surgery; 7. Obstetrics and diseases of women; 8. Hygiene; 9. Pathology and bacteriology; 10. Tropical sanitation.

The applicant will also be required to report on at least two selected cases at a hospital—one medical and one surgical case—and, if practicable, will be required to perform surgical operations on a cadaver.

To become eligible for appointment, an applicant must make an average of 70 on the entire examination and not less than 50 on any subject.

Appointments will not be made to any particular station, but to the general service subject to change of station as the expediency of the service may require.

ON THE SAME DATES (MAY 10, 11, AND 12, 1922) EXAMINATION FOR PROMOTION TO SENIOR SURGEON AND MEDICAL INSPECTOR WILL BE GIVEN IN MANILA AND ZAMBOANGA.

The subjects are the following:

*Senior Surgeon*—1. Practice of medicine; 2. Practice of surgery; 3. Obstetrics and diseases of women; 4. Hygiene; 5. Epidemiology; 6. Pathology and bacteriology; and 10. Laws and regulations.

*Medical Inspector*—1. Practice of medicine; 2. Practice of Surgery; 3. Hygiene; 4. Hospital and land quarantine management; 5. Laws and regulations; 6. Thesis.

It is desired that those who are now in the Service and are eligible for examination should take the examinations herein announced in order that they may become eligible for promotion and for appointment in the commissioned service.

Those who will take examination in Zamboanga should communicate with the Chief, Division of Mindanao and Sulu, for the date on which the physical examination should be made, and those who will take examination in Manila should present themselves to the Central Office, Philippine Health Service, on the 8th and 9th of May.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, March 31, 1922

CIRCULAR }  
U-24 }

*To the District Inspectors, Medical Officers of City Health Stations, District Health Officers, Presidents of Sanitary Divisions, and others concerned:*

The attention of all medical officers of the Service is called to the subsection (e) of section 1 of Act 3022 amending section 2212 of the Administrative Code which reads as follows:

SECTION 1. Section 2212 of Act No. 2711 known as the Administrative Code is hereby amended by inserting after subsection (d) thereof the following subsections (e) and (f).

(e) He shall at the end of each quarter send to the Chief of the Division of Archives certified copies of civil register containing entries of all deaths, marriages that have occurred during the quarter.

In order to have a uniform record, in accordance with certified copies of the civil register which should be sent to the Chief of the Division of Archives, all the officers of the Service having to do with the preparation and reporting of vital statistics to the Central Office, are requested and directed to verify their figures and check them with the figures given in the certified copies above-mentioned.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, April 12, 1922

CIRCULAR }  
U-25 }

*To the District Inspectors, District Health Officers, Presidents of Sanitary Divisions, and others concerned:*

General mortalities' reports from certain provinces received at this office during the last two or three weeks show that there is an important increase not only in infants but in the total mortality. The concurrent increase of the number of deaths from respiratory diseases and the investigation performed in some of the provinces induce

Influenza

this office to believe that influenza is the most probable cause of this increase of mortality.

The attention, therefore, of all medical officers of the Service is called to this fact and with the view to protect the community within their jurisdiction against any probable repetition of the last dreadful influenza epidemic, they are earnestly requested to be on the alert and to take prompt action on the first signs of danger.

S. V. DEL ROSARIO  
*Assistant Director of Health*  
*For and in the absence of the Director*

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## PHILIPPINE HEALTH SERVICE

MANILA, April 17, 1922

CIRCULAR }  
 U-26 }

*To all Chiefs of Divisions, Hospitals and Offices, and Medical Officers in charge of Stations, District Health Officers, and others concerned:*

In connection with the policy of the Government relative to economy and with Circular U-18, current series, of this Service, the attention of all concerned is invited to the information from the Secretary of Public Instruction that the Council of State has adopted the policy that no new positions should be created, no additional personnel employed, and no salary increased without the approval of the Counsel of State; but that if the occupant of a permanent position leaves the service and it is necessary to refill the position, it may be done without reference to the Council.

In view of the above, all concerned are requested, in the event of proposing appointments to this office in the future, to make a complete statement showing whether the appointees that may thus be proposed are to fill new positions or vacancies, and in the former case, the papers should be accompanied by a statement showing reasons why such appointments are recommended for the information of the Council of State and in the latter case, it should show whether the position is a permanent one, the name of the former incumbent thereof, and the last day of service of such incumbent.

S. V. DEL ROSARIO  
*Assistant Director of Health*  
*For and in the absence of the Director*

## PHILIPPINE HEALTH SERVICE

MANILA, April 20, 1922

CIRCULAR }  
U-27 }*To all Physicians in charge of Health Stations, Manila, P. I.:*

Upon recommendation of the Committee on Typhoid Investigation and Research, the catching, handling, offering for sale or consumption of oysters, paros, balay, caracoles, caligay, tangca, and other shellfish, are hereby prohibited within the limits of the City of Manila.

Medical officers in charge of Health Stations shall instruct the personnel under them that the provisions of this circular be strictly complied with, not only in public markets, but also in the streets and other places as well within the boundaries of the City of Manila.

S. V. DEL ROSARIO

*Assistant Director of Health**For and in the absence of the Director*

## PHILIPPINE HEALTH SERVICE

MANILA, April 24, 1922

CIRCULAR }  
U-28 }*To all Chiefs of Divisions, Hospitals and Offices, Officers in charge of Stations, District Health Officers, and others concerned:*

In a recent communication to this office, the Collector of Internal Revenue has advised that certificates issued by this Service for persons examined in regard to their physical condition, except those required by other branches of the Government for official purposes, must have a twenty-centavo stamp affixed thereto in accordance with law. The pertinent provision of law which is invoked in this connection is section 1449, paragraph (o), of the Administrative Code, which is copied herewith.

(o) On each certificate of damage, or otherwise, and on every other certificate or document issued by any customs officer, marine surveyor, or other person acting as such, and on each certificate issued by a notary public, and on each certificate of any description required by law, or by rules or regulations of a public office, or which is issued for the purpose of giving information, or establishing proof of a fact, and not otherwise specified herein, twenty centavos. (Italic ours.)

The Collector of Internal Revenue has also called the attention of this Service to section 1452 of the Revised Administrative Code, as amended by section 2 of Act 2835, which, among other things, provides that a taxable document not duly stamped shall not be recorded, nor shall it or any copy thereof or any record of transfer of the same be admitted or used in evidence in any court until the requisite stamp or stamps have been affixed thereto.

In this connection, it should be stated for the information of all concerned that the law imposes the duty of affixing the stamp upon the person executing and issuing or accepting a document, instrument, or certificate, but it does not say which person shall pay for the stamp. It is well settled, however, that the tax must be paid by the party for whose benefit the instrument or certificate is issued.

Officers of this Service are, therefore, directed to see that proper revenue stamp is affixed upon any certificate of physical examination signed by them, issued at the request of persons examined: and also to cancel the said stamps which shall be accomplished in accordance with section 1451 of the Revised Administrative Code, by writing or stamping the date across the face of the stamp in such manner that part of the writing or impression shall be on the stamp itself and part on the paper to which it is attached.

V. JESUS

*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, April 26, 1922

CIRCULAR }  
U-29 }

*To all District Health Officers:*

There is transcribed below the indorsement of the Insular Auditor with regard to the exemption of District Health Officers from the requirement of filling Provincial Form No. 132 (A) for each official trip they make on automobiles purchased from health funds and assigned for their use.

Respectfully returned to the Director of Health, with the information that this office will offer no objection to the district health officers being exempted from the requirement of filling Provincial Form No. 132 (A) for each official trip they make on provincial government automobiles purchased from the health funds. But the other requirements prescribed

in Provincial Division Circular No. 394 should be complied with. This does not, of course, include the privilege of transportation from the residence to office or vice-versa.

A Memorandum Circular to District Auditors on this matter is being issued by this office.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, May 3, 1922

CIRCULAR }  
U-30 }

*To the Physicians in charge of Health Stations, Manila:*

On the recommendation of the Typhoid Investigating Committee, the sale, preparation, or consumption of *scraped ice*, and the mixed food popularly named *halohalo*, are hereby prohibited for the reason that said food products become easily infected in its preparation with germs of communicable diseases.

Medical officers in charge of Health Stations shall instruct their inspection personnel to urgently inform of this prohibition all persons or firms engaged in the sale or preparation of said products, and they shall enforce said prohibition.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, May 9, 1922

CIRCULAR }  
U-31 }

*To all District Inspectors, District Health Officers, Presidents of Sanitary Divisions, and others concerned:*

Reports have been received in this office to the effect that in many offices of health officers in municipalities the health barometer prescribed in Circular T-69, and further explained in Circular U-11, is not displayed in view of the public and in many cases is not filled and kept up-to-date. The use of this chart, being of great value, it is hereby again ordered that the instructions given for its use be faithfully followed by all concerned. District Inspectors and District Health Officers are hereby made responsible for the strict compliance with the instructions given for the use of this chart, and mention should be made in their

report as to the offenses found in this connection and the action taken by them.

The Governor-General has seen one of these charts in his inspection and has advised this office that the instructions issued by this office about the keeping of said charts should be faithfully complied with.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-32 }

MANILA, May 9, 1922

*To Chiefs of Hospitals in the City of Manila:*

In view of the typhoid situation and the increasing number of cases of this disease which are being reported, the following regulations regarding the admission, isolation and care of typhoid cases in hospitals are hereby laid down, requesting strict compliance therewith:

1. The rooms and wards to which typhoid fever patients are admitted shall be screened against flies. Patients having other disease shall not be admitted or kept in wards or rooms in which there are typhoid fever patients.

2. Nurses who attend typhoid fever cases shall not attend patients suffering from other diseases. They shall wear operating gowns while attending the ward or room in which the patient is isolated. Nurses must also be instructed to cleanse the hands carefully after handling the typhoid fever patient, the bed linen and all other things used by the patients, or after disposing of excretion of the patients.

3. All personnel, nurses and attendants detailed for this work shall be vaccinated against typhoid fever.

4. The concurrent disinfection and proper disposition shall be made of all discharges, feces, urine, and other secretion of patients. They shall be protected from flies before leaving the room until such disposition is made.

5. Towels, linen, pillows, and other linen used by the patient should be placed immediately after use and before they are removed from the ward into a special receptacle, adequately covered. They shall be disinfected or steamed before sent to the laundry.

6. Specimens of blood, feces, and urine from these patients shall be given for laboratory examination whenever required or requested by agent of the Philippine Health Service.



7. The admission of visitors to typhoid patients should be properly regulated as regards time and number of visitors, and care should be exercised to avoid every possible way of infection among the visitors. Visitors will wear gowns while visiting the typhoid fever patients and instructed to wash the hands carefully before leaving.

8. The kitchen of the hospital should be located as far as possible from typhoid wards and room. Arrangement should also be made so that all plates and other table utensils used for typhoid cases be separated and thoroughly boiled before entering the kitchen and just after they have been used.

9. All hospitals are required to report, by telephone confirmed by writing to the information clerk of the Philippine Health Service, Central Office, all the cases or suspected cases of typhoid fever admitted or discharged or transferred to the other places on the same date they were admitted, discharged, or transferred. Final diagnoses on any change in diagnoses shall also be reported.

10. Strict compliance with these regulations shall be required from all hospitals 15 days after receipt of the circular, otherwise no typhoid patient shall be admitted to the Hospital not complying with these regulations following that date.

11. The attention of all concerned is called to sections 923 and 932 of the Revised Ordinances of the City of Manila which read as follows:

SECTION 923. 'A case of dangerous communicable disease' defined.—The term 'A case of dangerous communicable disease' for the purpose of this title, shall be held to include any person sick of or affected or attacked by any of the following named diseases: Cholera, smallpox, chickenpox, plague, diphtheria (including membranous croap), filariasis, ship or scarlet fever; measles, glanders, leprosy, actinomyosis, cerebro-spinal meningitis, and anthrax, and shall further include any other disease publicly declared by the Director of Health to be communicable and dangerous to the public health.

SEC. 932. *Isolation*.—Any person declared by the Director of Health or his authorized representative to have dangerous communicable disease may be isolated in such manner and in such places as the Director of Health or his authorized representative may order: *Provided*, That such diseased persons who have the means and who so desire shall be allowed to remain in their own homes, or to be taken to other places of their selection; *Provided, however*, That in the opinion of the Director of Health or his authorized representative, these homes or other places selected shall afford complete isolation.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, May 15, 1922

CIRCULAR }  
U-33 }

*To all District Health Officers and Medical Officers in charge of Health Stations in the City of Manila:*

The attention of all District Health Officers and Medical Officers in charge of Health Stations in the City of Manila is hereby invited to the letter of Dr. J. C. Geiger, of the United States Public Health Service, transcribed below:

The Surgeon General has detailed the writer to the University of Chicago to conduct experimental and field studies upon the nature and source of Food Poisoning under the direction of Professor Edwin O. Jordan.

It is planned to include in the scope of this investigation outbreaks due to raw foods, commercial or home canned foods, outbreaks of so-called winter cholera possibly due to polluted water supply, outbreaks of fever simulating typhoid, etc.

We would appreciate immediate notification by wire of any outbreaks of this character and gladly offer assistance by personal investigation and laboratory work.

District Health Officers and Medical Officers in charge of Health Stations in the City of Manila are, therefore, requested to furnish this office with full information concerning any outbreak of diseases mentioned above that may occur within their respective districts.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, May 26, 1922

CIRCULAR }  
U-34 }

*To all District Health Officers, Health Officers in charge of Stations in the City of Manila, Presidents of Sanitary Divisions, and all others concerned:*

With the view of having uniform reports on typhoid, cholera, or mixed inoculations, and at the same time in reply to queries from the different provinces as to the blank form that should be used in reporting these inoculations, the attached blank form of report has been prepared, requesting that the

same be used in the future for anti-typhoid or anti-cholera or mixed inoculations made by Health Officers. These reports should be sent every month to the Central Office not later than 15 days after the month corresponding to the report.

All other circulars and communications regarding blank forms and reports on anti-typhoid or cholera vaccinations are hereby superseded.

V. JESUS

*Director of Health*





## PHILIPPINE HEALTH SERVICE

MANILA, May 29, 1922

CIRCULAR }  
U-35 }*To all Officers and Employees of the Philippine Health Service:*

The attention of all concerned is invited to the following excerpt from a letter of the Traffic Manager of the Manila Railroad Company with reference to the exchanging of transportation requests for regular tickets:

Holders of transportation requests frequently board trains without exchanging transportation requests for regular tickets and, if possible, this should be remedied.

Accordingly, officers and employees of this Service who are furnished transportation requests must, before boarding trains, exchange the said requests for regular tickets.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, June 12, 1922

CIRCULAR }  
U-36 }*To all District Inspectors, District Health Officers, and other Health Officers concerned:*

The attention of this office has been called by the Honorable, the Secretary of Public Instruction, to the fact that the provisions of paragraph 2 of section 1013 of the Administrative Code are being generally invoked for the payment of the salaries of the clerical force of District Health Officers from the health fund of the province, when such salaries should, by law, be primarily paid from the provincial general fund. The Secretary has also stated that while the Department has been very liberal in this connection in the past, still it is believed just and proper to enforce section 987 of the Administrative Code which provides that the clerical assistants of the District Health Officers should be paid from the provincial general fund.

Accordingly, it is hereby directed that in the future no provision should be made in the health *plantilla* for the position of clerical assistants to District Health Officers, and that the province should be required to furnish the assistance in accordance with law, unless there are good and urgent reasons,

such as when the provincial general fund is unable to pay the salary of said assistants, whereupon the provisions of the 2nd paragraph of section 1013 of the Administrative Code should be resorted to.

It is the intention to keep the health funds in the most flourishing condition and to spend them only for purposes for which they have been created, and also, to enforce the policy or requiring each branch of the Government to meet their regular obligations and not depend upon others.

Therefore, all requests for the payment of salaries of clerical assistants of District Health Officers from the health fund should not be recommended, unless there are good and strong reasons which must be clearly stated, as otherwise this office will no longer recommend to the Secretary approval of same.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-37 }

MANILA, June, 16, 1922

*To all Chiefs of Divisions, Hospitals and Offices and District Health Officers:*

During several inspection trips made by the undersigned and by other officers of the Service, it was noted with regret that the requirements of Circular R-47, series 1919, are not being observed especially by the nurses, with very few exceptions, on duty in the hospitals and those doing public health nursing work. Apparently, they have failed to comprehend the requirement or they must have neglected to comply therewith. It was at the same time noted that they (the nurses) prefer wearing the pins of their respective Alma Mater. The pin of the Service was designed especially for all nurses and female physicians of the Service while on duty to take the place of Philippine Health Service *insignias* worn by the male commissioned and non-Commissioned officers and employees and for use of all employees of this Service at their option while out of duty.

All concerned are therefore hereby enjoined to see that the above said circular is adhered to. Circular R-46, series 1919, indicates the firm from which the Philippine Health Service pin is purchasable.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, June 17, 1922

CIRCULAR }  
U-38 }

*To all District Health Officers and local Health Officers of all Ports of Entry in the Philippine Islands:*

From information obtained from reliable sources and reports received in this Office, it is known that plague is alarmingly prevalent in several Oriental ports. On account of the existing frequent commercial intercourse between the Philippine ports and these infected ones, local health officers in the ports of entry in the Philippines should be on the alert and see that all the necessary precautions and measures to avoid the entrance of infection in their locality are being taken.

Plague

In this connection, the following measures are suggested:

1. If possible, obtain access to vessels arriving from Oriental ports (Amoy, Hongkong, and Indo-China), and coöperate with the quarantine officer, if any in the locality, in enforcing the regulations that vessels are to be kept in an adequate distance from wharves or piers and cables of attachment are to be duly protected with rat-proof devices to prevent the landing of rats from vessels to the pier.

2. To get, if possible, a list of all passengers arriving from Oriental ports, especially Chinese, with their addresses and have them inspected for at least 5 days after landing to detect possible infection.

3. That an emergency brigade of rat catchers be organized in the locality to start a campaign toward reducing the rat population to a minimum. To this end, it is suggested that the matter be taken with proper authorities, if necessary, to provide adequate appropriation.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, May 19, 1922

CIRCULAR  
U-39

*To all District Health Officers:*

In accordance with Act. No. 3029, the medical examination of school children in Elementary Schools will be carried out



according to the regulations hereinafter provided, bearing in mind that the main objects of this examination are:

(a) The prevention, detection, and isolation of communicable diseases among school children for the protection of the community, and

(b) The prevention, and correction of physical defects.

1. District Health Officers will make such arrangements with the Division Superintendents of Schools in their respective districts as may be necessary to conduct a satisfactory medical examination of children in Elementary Schools. They will make, as far as possible, or cause to be made by their subordinate Medical Officers or Graduate Nurses in the service, the medical examination of school children, *Health Officers shall perform this duty in connection with their regular inspection trips to towns or barrios.* The Principal of each school should also be requested to report immediately to the local Health Officer the existence of any suspicious disease among school children, Medical Officers of Health may arrange, if necessary, to have the school nurses coöperate with them in the work, with the understanding that the said nurses will remain under the direct supervision of the division superintendents, as has been suggested by the Director of Education in an indorsement to this office.

2. Arrangement should be made so that all children before first entering school, or before reëntering school after exclusion, are examined and vaccinated at the same time by the District Health Officer or his authorized representative, certificate on Form A together with vaccination certificate should be issued. Without such certificates no children should be admitted to school.

3. As soon after the opening of schools in June each year as possible, all school children in the Elementary School should be examined. Those suffering from communicable diseases should be excluded until completely freed of infection and those suffering from communicable disease or physical defect together with the former cases should be referred to the public dispensaries or their family physicians, if the student so desires, for treatment. After the first examination of all school children, other examinations should be performed from time to time during the school year, or whenever a report is received from the Principal of any school regarding the existence of any suspicious disease among the students.

4. (a) Form marked A shall be issued to all children free from communicable disease, who are about to enter the Elementary

School for the first time or who are about to reënter after exclusion from school.

(b) Form marked B shall be used as individual card for each student examined in school and filed in the office of the examiner for further reference.

(c) Form marked C shall be used in duplicate for students to be excluded or referred to public dispensary or private physician for treatment. One copy will be served to the Principal and another to the parent or tutor.

(d) P. H. S. Form 14 shall also be filled for each school examined, one copy to be filed in the examiner's office and another copy to be forwarded to the District Health Officer.

5. It should be emphasized to all examiners the special importance of the medical examination of school children, and their attention must be drawn to the following matters:

- (a) Communicable diseases.
- (b) Defects of vision.
- (c) Improper care of teeth.
- (d) Hypertrophy of tonsils and adenoids.
- (e) Physical defects.
- (f) Personal Hygiene.

The last item should be taken up with the Principal and Teachers of each school and their coöperation secured.

6. With reference to the exclusion of students suffering from communicable diseases, a most careful discretion on the part of the examiner should be exercised with regard to certain communicable but not dangerous diseases such as those numbered 31-32-33 in Form 14. If the disease is not advanced and the patient submits himself to treatment, exclusion from school may be dispensed with at the discretion of examiner, otherwise exclusion should be made strictly compulsory.

All regulations in conflict with the present circular are hereby repealed.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, *June 17, 1922*

CIRCULAR }  
U-40 }

*To all Chiefs of Hospitals and other parties concerned:*

The Insular Auditor has recently questioned the legality of employing servants, payable from Government funds, to take

care of the cleaning, maintenance, and otherwise of Government buildings occupied by employees who are allowed quarters with their families, stating that under auditing principles quarters allowance includes water and, possibly, light but never anything that would be necessary to clean or beautify the home. The above contention of the Auditor has been upheld by the Secretary of Public Instruction, and this office must, therefore, abide by the decision.

It is, therefore, directed that hereafter no servant paid from Government funds should be assigned to Government buildings occupied by Government employees with their families, and no Government material should be issued in connection with the upkeep of the buildings so occupied.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, *June 26, 1922*

CIRCULAR }  
U-41 }

*To all Chiefs of Divisions, Chiefs of Hospital, and others concerned:*

The object of this circular is to acquaint the entire administration of the Service of the actual stringency of funds felt by the Government in particular. According to the instructions received from the Honorable, the Secretary of Public Instruction, in view of advice from the Governor-General that indications are that the revenue of the Government for 1922 may not meet the demands of the appropriation for the year, judging from the first five months from January to May, the general policy to be laid down by the Bureau is one of the utmost economy in expenditures, and the Philippine Health Service must act accordingly. Therefore, notwithstanding the economies that may have already been made, the situation calls for still further retrenchment. Every unnecessary expenditures should be cut, all unnecessary personnel should be dropped, the administration should be brought to the most economical basis consistent with an efficient performance of the absolutely necessary duties of the Service.

The expenditures shown at the end of May for the different Divisions of the Service, are, generally speaking, larger than what their respective allotments allow, as compared proportion-

ately with the balance available for the remaining seven months of the year. It is evident, that unless there is a marked improvement, and greater economies are introduced by the different Divisions, the appropriation of the Service may not meet the year's expenditures. But the present situation does not merely call for efforts to expend within the amount appropriated, but for efforts to effect the greatest possible savings out of this appropriation. It is absolutely necessary, therefore, that the best endeavors of each and every officer and employee of the Service should be bent on cutting expenditures to the minimum. This ruling should be followed not only in the expenditures of actual funds, but also in the requisitions and use of supplies and materials by offices and individuals.

V. JESUS

*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, *July 12, 1922*

CIRCULAR }  
U-42 }

*To all Officers and Employees authorized to incur official obligations payable by the Philippine Health Service, and charge with reporting the same:*

The attention of all Chiefs of Divisions and Offices, Chiefs of Hospitals, District Health Officers of both regularly and specially organized provinces, Medical Officers in charge of stations in the City of Manila, Chiefs of Vaccinating Parties, and others, is called to the fact that the time has arrived for the preparation of estimates of appropriation for 1923 and that the date fixed in Circular U-7, current series, for their submission of estimates for their respective divisions and offices, is July 15, 1922.

Attention is invited to the fact that in the preparation of estimates the provisions of paragraph H, J, and I, of Circular U-7, and the order and arrangement of items of the general estimates, as shown in Circular T-43, dated May 22, 1921, should be closely followed. Also, the requirement that each item of estimate must be supported by data or computation as to how the amount requested in the estimate has been arrived at, should not be lost sight of. The same is true with the preliminary statement showing full summary of work accomplished during 1922, the plans for 1923, and economy introduced in the estimates. The public works estimate to be submitted also if needed by your division, will be made separately from the general estimate

and should also contain full particulars as to the nature and necessity of the work, extent of the project, and other data called for by the Circular.

District Health Officers of especially organized provinces charged with the duties of preparing insular estimates to be forwarded to this office may submit their estimates of general expenditures for 1923 in the order and arrangement as shown in their respective allotments for the current year, but without failing to observe other provisions of Circulars U-7 and T-43.

It is earnestly requested that the estimates be sent to the main office on the date specified or earlier if possible.

S. V. DEL ROSARIO

*Assistant Director of Health*

*(For and in the absence of the Director)*

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## PHILIPPINE HEALTH SERVICE

MANILA, July 17, 1922

CIRCULAR }  
U-43 }

*To all Medical Officers, Philippine Health Service:*

In connection with Circulars R-61 and S-64, and for the sake of uniformity and with a view to enable this Office to secure the most valuable information from the results of examinations made by the Bureau of Science of all specimens (water, milk, ice cream, soft drinks, stool, blood, urine, sputum, etc.) submitted by this Service, the following directions are given, for the information and guidance of all concerned, in connection with preparation of the necessary requisition for laboratory examinations:

1. *Water*.—With due regard to previous chemical examination of any kind of water, the routine examination that should be requisitioned for sanitary purposes, is the *biological*. It has been observed that samples of water are being submitted for laboratory examination with the request that same be examined for either "*bacterial count*" only, or "*B. Coli*" only, which is a basis distinctly inadequate to enable the health officers to determine the fitness or unfitness of the water for human consumption.

2. *Ice*.—Same as water.

3. *Milk*.—*Chemical* or *biological* or *both* shall be required for milk examination according to the purpose in view.

4. *Sweetmeats and other foodstuffs (ice cream, sherbets, ice-drops, frozen sugar water, etc.)*.—*Chemical*, under the Food Act and Regulations: or *biological*, from the sanitary standpoint; or *both* may be required as the case may be.

5. *Blood*.—In sending specimen of blood, the health officer concerned should specifically state the kind of examination required, such as agglutination tests, culture, complement fixation, parasites, etc. No *Widal tests* should be requested when the patient has been previously vaccinated against typhoid fever, unless the efficiency of a previous vaccination is to be tested.

6. *Stool*.—Stool specimens are sometimes sent to the laboratory with the following request for examination: "*Widal reaction,*" *typhoid carrier,*" "*dysentery,*" etc. Specimens of stools should be sent with a definite request for the examination required. In case of typhoid examination, the following will be used: "*request for examination for B. Typhosus and Para-Typhosus 'A' & 'B.'*" If it is desired that the kind of dysentery be determined, the request should read "*entamœbæ,*" or "*B. dysentery,*" and if typing of the latter is desired, the same should be definitely requested as follows: "*typing of B. dysenterix is requested.*" If examination for *intestinal parasites* is requested, the same should be clearly stated; if it is for *cholera* (cases or carriers) requisition should invariably be sent with the following statement, "*to be examined for cholera and non-agglutinating vibro.*"

7. *Urine*.—The kind of examination, *routine* (for albumen, sugar casts, cells, and crystals in sediment), or for *parasites*, or for any particular bacteria, typhoid for example, should be clearly stated.

8. *Sputum, pus, spinal fluid, etc.*—The kind of examination desired shall be definitely requested.

The necessary amount of each specimen shall be submitted, after having been taken and secured in accordance with the regulations and circulars of the Service, and the "instructions and directions of the Bureau of Science for the purpose" (P. H. S. Circulars Q-32-47, R-1-43-61, S-64, etc.; Bureau of Science Form No. 120, etc.), in order to avoid the need of requesting for more satisfactory specimens.

Requests for examination and other additional papers attached thereto shall be made and prepared on a shape and size of paper similar to the standard requisition, Bureau of Science Form No. 15, to facilitate the filing of same.

When only one kind of examination is desired, one single requisition shall be prepared for each specimen or group of specimens. The same rule must be observed when requesting only one kind of examination for specimens which pertain to group of persons of different classifications as for example: contacts, neighbors, food-handlers, water carriers, etc.

V. JESUS  
*Director of Health*

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PHILIPPINE HEALTH SERVICE

MANILA, July 20, 1922

CIRCULAR }  
U-44 }

*To all District Health Officers:*

In connection with Circular U-39 of this Service regarding medical examination of school children in elementary schools, there are enclosed herewith samples of forms marked A, B, and C prescribed for use in connection with the examinations. A copy of Philippine Health Service Form No. 14 which will also be used in accordance with the instructions given in Circular U-39 is also enclosed. Additional copies of these forms should be made or secured at the expense of the respective provinces.

V. JESUS  
*Director of Health*

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FORM A

PHILIPPINE HEALTH SERVICE

..... Health District  
..... Sanitary Division

....., 1922

The Principal

..... School

Sir:

The bearer, ....., has been examined to-day and found free from excludable disease.

.....  
(Examiner)

**FORM B**

School ..... Grade .....

Name ..... Address .....

Sex ..... Nationality ..... Age .....

[illegible]

(To be initiated by school physician or examiner)



FORM C

## PHILIPPINE HEALTH SERVICE

..... Health District

..... Sanitary Division

....., 1922

....., a student in the.....

..... is {excluded} to  
 {referred}  
 public dispensary }  
 family physician } for treatment for.....

.....  
(Examiner)

DEPARTMENT OF PUBLIC INSTRUCTION  
PHILIPPINE HEALTH SERVICE

REPORT ON THE MEDICAL INSPECTION OF SCHOOLS

Examination begun ..... (Date) ....., 19....

School. Total number of pupils examined .....

	Boys	Girls	Disposition of cases					Total
			Health sta- tion notified	Excluded	Treated at dispensary	Treated by home physi- cian	Refused treatment	
A—DANGEROUS COMMUNICABLE DISEASES (To be reported immediately to, and disposed of by, Health Station)								
1. Smallpox or varioloid).....								
2. Varicella.....								
3. Measles.....								
4. Diphtheria (including mild or atypical cases and carriers).....								
5. Whooping cough.....								
6. Mumps.....								
7. Tuberculosis (with open lesions).....								
8. Other dangerous communicable diseases.....								
B—CONTAGIOUS EYE AFFECTIONS (To be excluded and treated)								
21. Trachoma.....								
22. Acute conjunctivitis.....								

31. Scabies .....	
32. Pediculosis (live pediculi) .....	
33. Favus .....	
34. Other contagious skin diseases .....	

**D—COMMON SCHOOL DISEASES**  
(To be treated but not excluded)

41. Myopia.....	
42. Other eye affections.....	
43. Adenoids.....	
44. Tonsils, hypertrophied.....	
45. Dental caries.....	
46. Defects of hearing.....	
47. Discharge from one ear.....	
48. Discharge from both ears.....	
49. Adenitis, tubercular.....	
50. Tuberculosis (without open lesions).....	
51. Tinea.....	
52. Pediculosis, no live pediculi.....	
53. Bodily deformities.....	
54. Mental defects.....	
55. Backward development.....	
56. Other diseases.....	

Account	Debit	Credit	Balance
1000 Cash		1000	1000
1010 Accounts Receivable		1000	1000
1020 Inventory		1000	1000
1030 Prepaid Insurance		1000	1000
1040 Equipment		1000	1000
1050 Accumulated Depreciation			
2000 Accounts Payable		1000	1000
2010 Notes Payable		1000	1000
2020 Long-Term Debt		1000	1000
2030 Equity		1000	1000
2040 Retained Earnings		1000	1000
3000 Sales		1000	1000
3010 Cost of Sales	1000		1000
3020 Selling Expenses	1000		1000
3030 Administrative Expenses	1000		1000
3040 Depreciation Expense	1000		1000
3050 Interest Expense	1000		1000
3060 Income Tax Expense	1000		1000
3070 Net Income		1000	1000
<b>Total</b>	<b>1000</b>	<b>1000</b>	<b>1000</b>

Examination finished ..... 19.....  
(Date)

(Medical Inspector of Schools)

## PHILIPPINE HEALTH SERVICE

MANILA, August 1, 1922

CIRCULAR }  
U-45 }

*To Chiefs of Divisions District Inspectors, District Health Officers, and other employees concerned:*

The jurisdiction over the two health districts of Surigao and Misamis having been transferred from the Division of Mindanao and Sulu to the Division of Sanitation in the Provinces, Circular S-14 of this office, under date of February 4, 1920, should be modified as follows:

*First Health District of Inspection*

*Northern Luzon.*—Comprising the Provinces of Batanes, Mountain Province, Ilocos Norte, Ilocos Sur, Abra, La Union, Cagayan, Isabela, and Nueva Vizcaya, with headquarters at Vigan, Ilocos Sur.

*Second Health District of Inspection*

*Central Luzon.*—Comprising the Provinces of Zambales, Pangasinan, Nueva Ecija, Tarlac, Pampanga, Bulacan, Bataan, Rizal, Cavite, Batangas, and Palawan, with headquarters at San Fernando, Pampanga.

*Third Health District of Inspection*

*Southern Luzon.*—Comprising the Provinces of Laguna, Tayabas, Mindoro, Marinduque, Camarines Norte, Camarines Sur, Albay, and Sorsogon, with headquarters at Lucena, Tayabas.

*Fourth Health District of Inspection*

*Eastern Visayas.*—Comprising the Provinces of Samar, Leyte, Cebu, Oriental Negros, Bohol, Misamis and Surigao, with headquarters at Cebu, Cebu.

*Fifth Health District of Inspection*

*Western Visayas.*—Comprising the Provinces of Capiz, Iloilo, Antique, Occidental Negros, and Romblon, with headquarters at Iloilo, Iloilo.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, July 31, 1922

CIRCULAR }  
U-46 }*To all Chiefs of Divisions and Offices and others concerned:*

Hereafter and until further notice, chiefs of divisions and offices will send to this office an inventory of all the supplies on hand they might have at the end of each month, showing the unit prices of the supplies. This inventory report should be furnished this office before the monthly requisitions are made, or they should be attached to the monthly requisitions, as requisitions sent to this office ahead of the inventory report will not be acted upon.

It is also directed that requisitions on memorandum order be discontinued, and that all supplies needed be requested in the monthly requisitions, except in extreme emergency, in which case, an explanation should accompany the extra requisition giving reasons why such request had not been included in the monthly requisition.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, August 3, 1922

CIRCULAR }  
U-47 }*To District Inspectors, District Health Officers, Presidents of Sanitary Divisions, Sanitary Inspectors, and others concerned:*

For a better coördination of the work of the Chief of the Division of Sanitation in the provinces, all officers and employees under his jurisdiction coming from the provinces to the City of Manila with any kind of business pertaining to sanitation are hereby directed to report hereafter to the Division Chief, or, in case of his absence, to the officer in charge. Unless otherwise directed by the Director of Health, all matters should be taken up with the Chief of Division.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, July 31, 1922

CIRCULAR }  
U-48 }*To all District Health Officers:*

The attention of all District Health Officer is invited to the provisions of Circulars U-17 and U-21 of this office, dated March 4 and 22, 1922, which read as follows:

CIRCULAR }  
U-17 }*To the Physicians in charge of Health Stations, Manila, P. I.:*

In accordance with section 917 of the Revised Ordinances, City of Manila; and in order to have a more efficient sanitary supervision on the Manila water supply, medical officers in charge of Manila health stations are hereby directed to enforce the following rules:

1. No person shall engage in the sale or distribution of water in the City of Manila until after a permit therefor has been obtained from the physician in charge of the corresponding health station. Said permit shall be issued free and it is renewable monthly. It may be revoked at any time, when the sanitary instructions are not duly observed, or the health conditions of the persons engaged in said business may endanger the public health.

2. No permit for said business shall be given to persons affected with communicable diseases, or who are carriers of cholera, typhoid, dysentery, and ankilostomum duodenade or who have not been vaccinated with typhoid and cholera.

3. There shall be in each health station of Manila, one list or book whereon shall be recorded the names, residences, ages, civil and health conditions, dates of physical and health examinations, of specimen taken and of granting of the permit.

4. The utensils that shall be used in the sale or distribution of water in Manila shall be as follows: an ordinary gasoline can, or other similar metal receptacle with an opening of about 10 centimeters in diameter, near one of the angles on the upper side thereof. Said opening shall have a cover attached to one side thereof with a hinge. On the middle part of said upper side of the receptacle shall be fixed the handle thereof, behind the cover of the opening.

5. All receptacles for water carriers shall be previously approved by the Director of Health or by his authorized representatives.

CIRCULAR }  
U-21 }*To all Medical Officers in charge of Health Stations, Manila, and others concerned:*

In connection with Circular U-17 of this office dated March 4, 1922, the following requirements are made public relative to the sale or distribution of water in the City of Manila by water carriers.

1. Water carriers on their business shall wear clean clothes, have their fingers nails closely trimmed, and their hands entirely clean.

2. Water cans or containers shall be thoroughly clean while in use, and same shall be placed, if not carried by persons, on strictly clean carretelas of proportional size.

3. In collecting the water from artesian wells or other water sources, the container shall be placed open under the faucet of the well and let the water fall into the container directly without having any contact with hands or anything else. Once full, the container shall be covered and immediately placed in the carretela. Care should be taken that the cover or any part of the opening or of the interior of the container shall not be touched with fingers or anything else.

4. In distributing the water, the water carrier shall pour it directly from his container to the house container, and shall carefully avoid that his hands or anything else be placed in contact with water. Strainers and funnels shall not be used unless previously entirely sterilized.

5. Water containers shall be carefully washed every day immediately before being used with hot boiled water.

6. Water distributors using large tanks on trucks shall have their tanks provided with faucets and openings with proper covers permanently attached to it by adequate hinges. In collecting water, whenever possible, the tanks shall be placed open under the source's pipe, to receive directly the water supply without handling it by instrument or accessory apparatus. When this is not practicable, the process for getting the water from the main to the tank should be thru water cans or containers treated and handled in the same manner as outlined in paragraphs 2, 3, and 5 of this circular. The distribution of the water from the tank shall be subjected to the same precautions and requirements contained in this Circular.

Medical officers in charge of stations are directed to give instructions to water carriers for the proper observance of the above regulations and no permit shall be issued until they are sure that the applicant has familiarized himself with the said regulations. The permit should bear a statement that it is revokable at any time for nonobservance of the regulations herein established.

As it is believed that the extension to the provinces of the provisions of the above circulars will redound greatly to the advantage of the health condition of each town and province, it is requested that efforts be made by District Health Officers to have all provinces and municipalities approve ordinances on which the said circulars may be based, and thus enforce their provisions in all the towns of the Philippine Islands.

V. JESUS

*Director of Health*

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## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-49 }

MANILA, August 3, 1922

*To all District Health Officers:*

The attention of all District Health Officers is hereby invited, in connection with the Insular Auditor's Division Circular 394,

series 1921, regarding the use of Government automobiles, to the following indorsement from the Insular Auditor, the Secretary to the Governor-General, and the Secretary of the Interior, which are self-explanatory:

**10th Indorsement**

*May 31, 1922*

Respectfully returned to the Honorable, the Secretary of Public Instruction.

If Department Order No. 6 is meant that promulgated by the Secretary of the Interior on April 7, 1920, it is believed its provisions are not applicable to a District Health Officer who is an Insular official like the Division Superintendent of Schools, the District Auditor, etc. Among the Insular officials enumerated in Executive Order No. 89, s. 1919, who are entitled to the privilege of transportation from residence to office and vice versa, the District Health Officer is not included. In order that the privilege requested may be granted, it would be necessary to obtain the special permission of the Governor-General in accordance with the penultimate paragraph of the above-mentioned Order.

(Sgd.) E. M. FULLINGTON  
*Insular Auditor*

**12th Indorsement**

*Manila, June 16, 1922*

Respectfully returned to the Honorable, the Secretary of Public Instruction, with the information that Executive Order No. 89, series of 1919, has been construed to grant permission to all heads of offices, including division superintendents of schools, district auditors, and district health officers to use official transportation between thier residences and offices. The Secretary of Public Instruction may instruct his subordinates accordingly. The matter of filling out provincial forms should be taken up with the authority which prescribes such action.

(Sgd.) C. W. FRANKS  
*Secretary to the Governor-General*

**16th Indorsement**

*July 3, 1922*

Respectfully returned, through the Insular Auditor and the Chief, Executive Bureau, to the Honorable, the Secretary of Public Instruction, hereby approving the within request of the Director of Health that district health officers be exempted from the requirement of filling Provincial Form No. 132 (A), in view of the preceding indorsement.

(Sgd.) JOSE P. LAUREL  
*Acting Secretary of the Interior*



The Insular Auditor's Circular 394, therefore, should be considered amended with regard to those officers who are entitled to official transportation from their residence to their office and vice versa.

V. JESUS  
Director of Health

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PHILIPPINE HEALTH SERVICE

MANILA, August 5, 1922

CIRCULAR }  
U-50 }

*To District Inspectors, District Health Officers, Presidents of Sanitary Divisions, Sanitary Inspectors, and others concerned:*

In the several inspections made by the undersigned and the Chief of the Division of Sanitation in the Provinces, the following facts have been noted:

That the reports, especially those on vaccinations and the monthly health index, found in the offices of the district health officers, presidents of sanitary divisions and sanitary inspectors, are not properly checked up before filing. And in many instances, the figures given in the reports can positively be said to have been "manufactured." To illustrate: in several monthly vaccination reports, the number of inspections given is always the same as the number of vaccinations, no matter if the vaccinations were performed in the markets, in the barrios, or in rural places, in which case the vaccinated people can not all be located during the inspections. Sometimes, the number of inspections given for a certain place is even more than the number of vaccinations, although no previous vaccinations have been performed in that place. It has also been noted that oftentimes the rate of positives given is very high, which is hard to believe, considering the fact that the majority of the people vaccinated has already been successfully vaccinated in previous years. With reference to the monthly health report, Provincial Form No. 67, the figures given therein, generally those on the table of general inspections, are erroneous. In one municipality, for example, it has been found that the number of *tiendas* and private yards inspected is always ten, twenty, or thirty.

This practice of 'manufacturing' reports can no longer be tolerated; and the officers concerned are hereby directed to exercise their utmost care in the preparation of such reports.

They should be examined and verified first before filing, and the *initials of the examining officers* (district inspectors, district health officers, and presidents of sanitary divisions), together with the date of such examination should be written in red, or blue, pencil, or, in ink, on the face of the reports. No report, whatever, should be caused to be filed without the required initials and date.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, August 8, 1922

CIRCULAR }  
U-51 }

*To all District Health Officers and others concerned:*

The attention of this Service has been brought to several instances showing that medical officers of this Service performing physical and medical examination on civil service applicants and others are not exercising due care to secure or to record accurate data on the blank forms for examination. A case has been reported to this office where due to a gross mistakes made by the examining physician, who is president of a sanitary division, the applicant has been deprived of his opportunity to take civil service examination. This Service has also noticed with regret that mistakes of this nature have been rather frequent.

District Health Officers are, therefore, requested to instruct presidents of sanitary divisions and other medical officers concerned that the medical and physical examination of civil service applicants and others should be performed with the greatest care possible in order to avoid errors of omission or commission which may result in an applicant's losing opportunities which he could have otherwise grasped, or which may unnecessarily delay action in any given case.

Errors of this nature may render the responsible officer liable to disciplinary action for neglect of duty as the circumstances in any particular case may warrant.

S. V. DEL ROSARIO  
*Assistant Director of Health*  
(For and in the absence of the Director)

## PHILIPPINE HEALTH SERVICE

MANILA, August 15, 1922

CIRCULAR }  
U-52 }

*To all District Health Officers, Provincial Dentists, and others concerned:*

In connection with the establishment and operation of dental clinics in the provinces, the instructions given hereunder shall be observed with regard to the qualifications and compensation of the personnel, and the operation of such clinics. This circular is intended for the existing clinics and for those that may be established in the future.

The position of dentist, except in special cases, should be a part of the health *plantilla* of the province. The incumbent to the position shall be under the immediate supervision of the District Health Officer, but the dentist shall have in his direct charge the operation of the clinics and shall conduct them under the following program, as a part time officer:

At least four hours daily should be observed by the dentist, unless the exigencies of the service require a greater number of hours.

The visits of the dentist to the municipalities and barrios will be regulated by the District Health Officer who shall give previous notice of the municipalities and barrios to be visited both to the dentist and to the municipal and barrio authorities concerned.

The dentist shall keep a record of all the work performed by him, which shall be filed in his office; and he shall make a compilation of his work once a week and shall furnish such information from time to time as the District Health Officer may require; and at the end of each month, he shall submit a report of his transactions during the month for which the report is made to the Director of Health, thru the District Health Officer. He shall also make previous arrangements with either the local health officer, the school officials, or other authorities concerned about the locality where he should give consultation and treatment when holding clinics in the barrios, schools, etc., other than the main office. He shall provide himself with the equipment and instruments necessary to perform his duties and the Government shall only furnish materials and medicines.

The dentist shall treat and give medicines free to the following:

1. Pupils of the public schools at the request of the principal or the teacher of the pupils concerned.
2. Pupils of schools who are found needing treatment by Presidents of Sanitary Divisions or District Nurses in their inspec-

tion. The dentist should go to every one of the class rooms of the school visited by him and ascertain by personal inspection all the pupils who require dental advise and treatment, and should require such pupils to go to his clinic for the purpose of receiving the necessary advise and treatment.

3. Indigent persons so certified by the Municipal President.

4. Persons entitled to free medical treatment by law.

The dentist shall not be required, under this appointment, to make crowns, artificial teeth, or perform any work other than to treat and cure the diseased tooth.

Dentists shall receive compensation under the following schedule:

	Minimum	Maximum
First-class provinces.....	₱1,000	₱1,600
Second-class provinces.....	960	1,200
Third-class provinces.....	720	960
Fourth-, fifth-, and sixth-class provinces....	720	720

No person for the position of dentist shall be selected for appointment unless he has completed the regular course of at least three years in any recognized college or school of dentistry and has previously obtained a certificate of registration as dentist from the Board of Dental Examiners; provided, however, where there is no person possessing the hereinabove requisites, the district health officers may recommend undergraduate dentists of long experience who are holders of certificates lawfully issued since the tenth day of January, 1903, who shall be temporarily appointed until an eligible has applied for the position.

V. JESUS

*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, *August 15, 1922*

CIRCULAR }  
U-53 }

*To District Inspectors, District Health Officers, and Presidents of Sanitary Divisions:*

It has come to the notice of the Chief of the Division of Sanitation in the Provinces in the inspections made by him to certain municipalities that many Presidents of Sanitary Divisions do not have on file in their respective offices copies of municipal sanitary ordinances. Consequently, President of San-

itary Divisions are, in most instances, ignorant of the existing sanitary ordinances in the municipalities under their respective divisions. In view of this, all Presidents of Sanitary Divisions are hereby directed to have hereafter on their desk office copies of all municipal sanitary ordinances pertaining to their respective divisions for their administrative guidance. Moreover, copies of the ordinances should be furnished by the Presidents of Sanitary Divisions to the respective District Health Officers, who are also directed to keep them in their respective offices.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, August 15, 1922

CIRCULAR }  
U-54 }

*To all District Health Officers and others concerned:*

In view of the many inquiries made by District Health Officers with reference to regulations regarding the wearing of uniforms, specially for sanitary inspectors, the attention of all officers concerned is hereby again invited to the provision of Circular O-1 of January 3, 1916, on the subject.

The pertinent portion of this circular is quoted below for strict compliance:

Provincial and municipal sanitary inspectors will be required to wear uniforms. Those having the BH *insignia* and buttons may wear them with the new uniform for the present; those who have not, shall not be required to purchase *insignia*, etc., until the new ones arrive. Sanitary inspectors will be uniformed as assistant sanitary inspectors, third class, until they have acquired superior status by examination.

Badges should be the property of the province, and may bear the name of the province. In each province they should be numbered consecutively beginning with the No. 1. They should be issued to sanitary inspectors on memorandum receipt, and strict accounting for them should be required.

District Health Officers will hereafter withhold the appointment of sanitary inspectors until they are properly equipped and duly uniformed as prescribed.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, August 17, 1922

CIRCULAR }  
U-55 }

*To all District Health Officers, Presidents of Sanitary Divisions,  
and others concerned:*

With a view of keeping a standard file in the offices of presidents of sanitary divisions regarding permanent records, the following arrangement is hereby prescribed and made obligatory:

Shannon file or the like will be furnished by the District Health Officer marked No. 1 (daily time records and receipts); No. 2 (weekly reports of mortality both provincial forms No. 186 and No. 75); No. 3 (weekly reports including all pertinent data of any dangerous communicable disease whenever it constitutes an epidemic); No. 4 (monthly reports provincial form No. 67); No. 5 (annual report); No. 6 (vaccination report, (a) anti-cholera, (b) anti-typhoid, (c) mixed cholera and typhoid, (b) smallpox); No. 7 (vaccination stubs); No. 8 circulars of the District Health Officer); No. 9 (letters received); No. 10 (letters sent); No. 11 (cemeteries records); No. 12 (vouchers and property responsibility); No. 13 (sanitary orders and telegrams); No. 14 (miscellaneous).

It is believed that, this file will be adequate for at least four years, at the end of which period or sooner, the files kept during the first year shall be wrapped into separate bundles, properly labeled and placed in some secure and accessible place.

When the office of a president of sanitary division is not provided with a room or adequate apartment, the wall file may be substituted by envelopes and wrappers which must be kept under lock.

Quarterly reports may be placed with file No. 4 as they will be superseded by monthly reports.

A close and thorough supervision is requested of the inspecting officers in order to carry out promptly and faithfully the provisions of this circular.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-56 }

MANILA, August 18, 1922

*To all Medical Officers in charge of Health Stations, City of Manila, and others concerned:*

In connection with the issuance of municipal licenses or permits in the City of Manila in a number of which the previous concurrent approval by the Health Service has been made requisite, the following rules will hereafter be observed:

1. In the inspection or inspections previous to the approval by the Health Officer, only the premises proper (building, sanitary appliances, equipment, and personnel assigned to the business) with non-official neighboring surroundings, will be given most careful consideration.

2. In case of businesses to be located facing public or quasi-public squares, streets or alleys that, due to lack of, or imperfect street drainage may result in a nuisance which is the specific incumbency of the city to abate, the application for a license or permit may be approved, it being considered a sufficient safeguard against any prospective nuisance arising therefrom, simply to add in the approving indorsement the following remark:

The street drainage system concerned in the present application is defective (lack, or imperfect street drainage); the application is, however, favorably recommended upon the assumption that the city, in the faithful fulfillment of its duties, will in the near future provide and complete adequate means to secure a satisfactory and in all senses efficient public street drainage.

All circulars, memorandum, or verbal orders previously issued which are or may be wholly or in part in conflict with these rules are hereby repealed and declared null and void.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-57 }

MANILA, September 1, 1922

*To all Medical Officers in charge of Health Stations in the City of Manila:*

In order to prevent the spread of communicable diseases (cholera, typhoid, dysentery, etc.), thru the drinking waters served to the public in the *sari-sari tiendas* of this city, wherein

has been repeatedly proven by analysis, waters become frequently infected by the carelessness of the concerned persons in cleaning, sterilizing, and protecting against infection the drinking waters, its receptacles and glasses used, etc., this office has decided to prohibit the service of drinking water to the public in all *sari-sari tiendas* of Manila, which do not possess licenses for restaurants or refreshment parlors. The prohibition shall become effective 15 days hereafter, on September 15, 1922, time considered sufficient for all concerned to be notified thereof by the sanitary inspectors of the corresponding health districts.

Any infraction against the herein mentioned prohibition shall be considered sufficient motive to recommend the revocation of the license of the infractor.

V. JESUS

*Director of Health*

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## SERVICIO DE SANIDAD DE FILIPINAS

MANILA, agosto 25, 1922

CIRCULAR)

U-58 }

*A los Oficiales de Sanidad de Distrito, Presidentes de Divisiones Sanitarias, Inspectores Sanitarios y a todos a quienes puedan concernir:*

Con el fin de coordinar más ampliamente los trabajos de vacunación contra la viruela en las Islas y establecer reglas que los oficiales y empleados de sanidad deben seguir con respecto a las personas que deben vacunar, así evitando duplicación del trabajo y reafirmar más los resultados, desde esta fecha, se observarán los siguientes procedimientos:

(a) Inspectores sanitarios locales.

1. Vacunación y revacunación en general de todas un mes de edad.
2. Revacunación de todos los niños al ingresar por primera vez en las escuelas.
3. Revacunación de todas las personas con resultado negativo (de la vacunación), y de aquellas personas con marca positiva de vacunación desde 5 a 12 años de edad.

(b) Partidas de vacunaciones.

1. Vacunación y revacunación en general de todas las personas dentro de la edad de un mes a 25 años de edad.



- (c) Cuando ocurra un caso de viruela se procederá inmediatamente a la vacunación o revacunación de todos los contactos y seguidamente de todas las demás personas de la localidad sin distinción de edad.

Para proceder con facilidad a la vacunación infantil se debe hacer un censo mensual de los nacimientos ocurridos durante el mes en cada municipio, y una o más veces al mes, procederá el oficial de sanidad local o sanitario municipal a vacunar a todos los niños que han cumplido un mes de edad y revacunar a los negativos y personas de 5 a 12 años de edad en todos los barrios de cada municipio.

No se cree que habrá alguna dificultad en hacer una vacunación completa y satisfactoria de todos los niños de un mes de edad pues sabemos que por cada 15,000 habitantes tenemos una natalidad alrededor de 36 por mil anualmente, lo cual nos da un total de 250 nacimientos al año o sea 40 nacimientos más o menos al mes descontando las defunciones; triplicando este número para dar margen a revacunaciones y vacunaciones de negativos un total de 120 vacunaciones 21 al mes tendremos que hacer. Como se calcula que por cada 15,000 habitantes existe un sanitario, éste necesitaría, señalándole un promedio mínimo de 20 vacunaciones diarias, 6 días de cada mes para hacer efectiva y cubrir el trabajo de la vacunación en su localidad, quedándole 24 días que los podrá emplear en otras actividades.

Las inspecciones se harán no antes del octavo día de la vacunación, y podrá verificarse en la segunda visita mensual que se haga en cada barrio.

Pero para la efectividad de una buena vacunación hace falta además una supervisión constante del Jefe del Distrito Sanitario y de los médicos de División Sanitaria, siendo ellos los responsables de los *reports* de vacunación que les son sometidos.

Todo sanitario debe estar suficientemente instruido para la vacunación, en particular, de los tres requisitos indispensables:

1. Técnica de la vacunación.
2. Interpretación exacta del resultado de la vacunación.
3. Conservación del virus vacuna.

V. JESUS  
*Director de Sanidad*

## PHILIPPINE HEALTH SERVICE

MANILA, September 4, 1922

CIRCULAR }  
U-59 }

*To all Officers of the Philippine Health Service and others concerned:*

For the purpose of setting a definite plan for the extermination of yaws of which a great number of cases exists in the Islands, it is hereby ordered that yaws be included in the list of reportable diseases. Medical officers of the Yaws and Neosalvarsan service should be always on the alert for the discovery of cases and District Health Officers should make survey of their districts in their inspections and thru Presidents of Sanitary Divisions and other sanitary personnel for the detection of yaws patients. Medical officers in charge of health districts shall report monthly to the Director of Health the names, sexes, ages, and addresses of persons existing in their districts as suffering with yaws as well as the action they have taken to have said persons properly treated and the result of the treatment. It is, therefore, necessary that the monthly report of yaws should contain the newly found cases, recurring cases, cases in treatment, and cases cured during the month. Treatment should be given in hospitals or appropriate clinics by medical officers of the service who should familiarize themselves with the technique of the treatment. Accordingly, any person suffering with yaws, when found, should be directed to present himself to a public hospital or clinic under the service existing in the district in order that they may be given treatment, unless otherwise treated by a private doctor.

The treatment shall consist of the administration of neosalvarsan. The antimony-iodide treatment is not recommended because it is more expensive and requires longer time to obtain the desired result.

Patients who are able to pay shall be charged the regular hospital rate by the public hospital or dispensary furnishing the neosalvarsan. Indigent patients, however, shall be furnished the medicine required free of charge, the value of such medicine to be borne by the health fund. When this is not possible, medicines will be furnished at Insular expense. To carry out the foregoing plan, allotments should be made for this purpose by the District Health Officers and chiefs of hospitals and requisitions should be made for the amount of neosalvarsan estimated to be required in the hospital and in their districts.

The Philippine Health Service will see that a sufficient quantity of neosalvarsan is always in stock in the property office of the service and the chief of this office shall be personally responsible for its keeping and shall account for same as an unexpendable supply until issued by order of the Director of Health. All requisitions by officers of the service for neosalvarsan should, therefore, be made to the Director of Health, but before forwarding them they should bear the approval of the Provincial Treasurer, if from District Health Officers or chiefs of provincial hospitals. As already stated, when the health fund of any province cannot withstand the expense for neosalvarsan, same will be furnished at Insular expense. Requisitions for neosalvarsan free must be accompanied by a trial balance of the health fund for the month preceding the month on which the requisition is made and statement of the obligations to be covered by the balances shown in the said trial balance.

All neosalvarsan purchased by Government agencies under the supervision of the Philippine Health Service shall be issued only for the actual treating cases of yaws, as provided in the preceding paragraphs. Officers of the service to whom any quantity of neosalvarsan has been furnished must account for same and must keep a record showing the disposition made thereof. The record must show the name and address of the person to whom the neosalvarsan has been administered, the time and place of such administration, and the quantity used at each time. Records should be made in a book or on cards and kept up-to-date ready for examination at any time, and the drug properly guarded against any loss and ready for inspection at any time by competent authorities. Any shortage in the drug found upon inspection that is not readily and satisfactorily explained, will be a cause for disciplinary measure in addition to exacting from the officer concerned the payment for the drug not properly accounted for its prevailing market value in the locality, but never less than Government cost plus 10 per cent surcharge.

No sale of neosalvarsan under the care of officers of the service shall be made except to branches of the Government. Such sales shall be under the express condition that the drug will be used only for actual treatments needed by the respective branches and that it will not be resold to private parties. The Philippine Health Service will refuse the sale or withdraw drug already sold to other branches of the Government in case these provisions are not strictly observed. In case of emergency, however, only a reasonable limited quantity of the drug may be sold

to private parties at the price prevailing in the local market at the time of the sale, provided that it shall not be in any event less than the Government cost plus a surcharge of 10 per cent, and provided further that, evidence satisfactory to the Director of Health is submitted showing that the drug is not available in the locality and that a real emergency exists making it inadvisable to await shipment from Manila or other remote points. In all such cases, authority from the Director of Health should be obtained by wire, if necessary, at the expense of the party interested, quoting price offered and quantity needed.

At the end of each month a report should be made to the Director of Health by all officers of the service in charge of the keeping of any quantity of neosalvarsan showing amount on hand at the beginning of the month, amount received, and amount issued, used, and sold during the month, and balance remaining at the end of the month the report pertains.

V. JESUS

*Director of Health*

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## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-60 }

MANILA, October 3, 1922

*To all District Health Officers, Presidents of Sanitary Divisions, and all to whom it may concern:*

Announcement is hereby made that the "Monthly Health Report" Provincial Form No. 67, and the Quarterly Health report, Provincial Form No. 46, Municipal Form No. 43, P. H. S. Form No. 59 and blank form used in the report of typhoid and cholera vaccinations, are heretofore declared abrogated; and in lieu thereof, a new consolidation of these abrogated forms to be then entitled "Monthly Health Report," Provincial Form No. 70, shall hereafter be adopted to the exclusion of such forms hereby declared abrogated by this Circular. Beginning January 1, 1923, no monthly health report shall be submitted except when made on the newly consolidated form herein stated.

This change being deemed necessary for the interest of this Service in that it insures efficiency and general uniformity in the reports of health officers, the due observance of the contents of this Circular is hereby enjoined.

A copy of the Form No. 70 is herewith attached and all concerned is enjoined to make a careful study of the same in

order that they may familiarize themselves with all its contents, and by that way, errors and delay in submitting the report might be avoided.

Requisition for supply of this form must be made by District Health Officers and Presidents of Sanitary Divisions thru proper channels and on time to have copies on hand at the time of the preparation of same for the month of January, 1923.

Any question, information, or inquiries in connection with the interpretation and filing out of the tables contained in this report, must be made before December, 1922, for the proper preparation and remittal of the answer on due time.

Instructions for the interpretation of the tables are, also, attached, requesting that the same be strictly followed in the filling out and preparation thereof.

V. JESUS  
*Director of Health*

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#### INSTRUCTIONS FOR THE PREPARATION OF THE PROVINCIAL FORM NO. 70, THE MONTHLY HEALTH REPORT

This report must contain information and data regarding personnel, sanitary conditions, sanitary improvements, public welfare works, morbidity, epidemiological, and vital statistics. In the preparation of this report, the following, general and specific, instructions should be followed:

##### GENERAL INSTRUCTIONS

1. This report must be prepared and submitted by the Presidents of Sanitary Divisions to the District Health Officers *not later than the 10th day* after each month for which the report is made. One report shall be prepared for each municipality of the Sanitary Division.

2. The District Health Officer shall make consolidation of all reports received from the different Presidents of the Sanitary Divisions in his province and submit a consolidated report to the Director of Health *not later than the 20th of each month following that month* for which the report is made. Any delay in the submission of this report must be accompanied with an explanation giving the reasons for the same.

3. This report constitutes an *official and public document*, for the preparation of which, exactness and accuracy of the figures and informations given therein, the Presidents of the Sanitary Divisions and the corresponding District Health Officer will be *strictly held responsible*.

4. The report shall be prepared and written in *ink*; *erasures, corrections, or amendments must be avoided whenever possible*. If unavoidable, any correction or amendment made on the report must be made with red ink and initialed by the person who made the correction.

5. All the tables contained in this report must be filled out, stating the figures or informations required. When nothing was done or for some reasons no information can be given in connection with the information requested in any of the tables contained therein, state so in the corresponding table, by the words "None," "No record," "No change," etc.

6. A requisition for enough number of this form sufficient for 6 months use shall be made twice every year thru the provincial or municipal treasurer.

7. Except as requested in the following *specific instructions*, the instructions given in the Circular No. T-64, a copy of which is attached, shall be followed in the preparation of all the tables in this report.

8. For the sake of uniformity to strictly follow the special instructions given below, your attention is also called to the footnotes and remarks given under every table in this report. These notes and remarks give explanations and instructions as to the manner of filling out the corresponding tables and all concerned are requested.

9. If more space for any of the tables contained in this report is needed, a piece of paper must be pasted on the corresponding table to contain all the necessary information.

#### SPECIFIC INSTRUCTIONS

Regarding the *change of personnel*, all appointments, resignations, changes, suspensions, and discharges of any person or persons within your jurisdiction and occurring during the month, shall be stated in the corresponding tables, on page 2.

The *general inspection* tables on pages 3 and 4 shall be filled out according to the instructions given in Circular T-64. The same should be done in regard to the *special inspections* on page 5.

On page 6, two different tables shall be filled out. On the table of *Sanitary improvements* shall be stated all permanent and provisional improvements established *within the month only*; if none has been done or established within the time corresponding to the report, give a statement to this effect. The same is requested for filling out the table on sanitary orders, etc.

On page 7, the subjects of sanitary ordinance submitted and the action taken on by the municipal authorities, should be stated as requested in the table of *municipal sanitary ordinances*. The same is requested with regard to circulars published and issued during the month, a copy of which shall be inclosed in this report. If no ordinance has been submitted nor any circular issued during the month, state so.

Give a résumé or a brief statement of the work on *publicity and sanitary education* on the corresponding table on page 7 and also such other information of sanitary interest which is not included in this report.

On pages 8 and 9, the monthly report of dispensaries shall be stated. In this connection, it is requested to give always a clear statement of the disease given under the column of diseases.

*Your attention is called to an error made in the printing of this table. There appear two columns with the headings of "died" or "muertos" and "lost" or "perdidos." The column "lost" or "perdidos" must be omitted leaving the heading "died" or "muertos" for both columns of "males" and "females."*

On page 10, the table on *water supply* shall be filled out in accordance with the footnote "information" and to the Circular T-64. Table (a) on water supply requests information as regards to any water supply newly opened to the public service within the month corresponding to the report.

Page 11, *laboratory examinations*.—This table should include all laboratory examinations performed in the municipal or provincial laboratory stating the number of examinations performed corresponding to each munic-

ipality. You are requested to see that examinations of water supply and milk be made as a routine work within your jurisdiction, as often as possible.

The table on *health index* on page 11 must be made in accordance with the Circular T-64, for each municipality. *The estimated population as of July should be given, instead of as January as erroneously printed.*

On page 13, the activities and *welfare works* of the municipal nurses and midwives and *disinfection equipment* table on page 14, shall be filled out following the instructions given in Circular T-64.

*Vital Statistics.*—The table of population should be given classified by nationalities and sexes and estimated as for July of the corresponding year. The computation of the estimated population, should be made in accordance with the Circular T-64 for the native population. For foreign population, however, endeavor should be made to make a *partial census* for each municipality of the population by nationality. This is believed feasible taking in consideration that the foreign population in each municipality is only a very small proportion of the total population. If no partial census is made, make the computation on the basis of the official census figures.

The *mortality* table and the natality as well shall be filled as usual and the rates shall be computed in accordance with the instructions given in the footnote. The table of mortality contained on pages 16, 17, 18, 19, and 20, shall be filled carefully taking as the basis the Official Book Register of Deaths checked with the death certificates filed in the office. The death among transients contained on page 21 should give the death occurring among transients and not living permanently in the locality. For the purpose of uniformity, *less than one year* of permanent residence in a locality and *without any intention of residing permanently* must be considered transient residence. The causes of deaths, the nationality, the age, the sex, the social condition, and the residence of the deceased should be given in their corresponding columns. Under the column "residence of deceased," the *permanent residence* of the deceased is the one that should be given.

On page 22, "Death among Americans and other foreigners." In the preparation of this table the name of the deceased should be given (if "Mrs." give her maiden name and not her husband name). The nationality, sex, age, social condition, place of residence, cause of death, and residence shall also be given. The "residence" refers to the "permanent residence" of the deceased.

Page 23 which contains the table of "Deaths by age and social condition" and the table of marriages by age shall be filled out as usual. On page 24 another table of marriages classified by nationalities and civil condition should be filled out.

On the same page, a table of comparative annual rates by month during the last 5 years is requested. It is not expected that the annual rates corresponding to each month of the last 5 years can be prepared at once. For this reason it is requested that at least the rates for 1922 should be given in the report for January. The rates for the year 1921 be given by February, that for 1920 must be prepared by March, and so on, until the whole table is completely filled out at the end of five months. The rates requested in these tables are the annual rates corresponding to each month of the corresponding year on the basis of the population for the

same year estimated as of July 1st. The computation of these rates shall be made in accordance with the instructions given at the bottom of page 15 for death, birth, and marriage rates. The rates for infant mortality shall be computed by multiplying the number of deaths under one year by 1,000 and dividing the product by the number of births corresponding to the same period of time which is one month in this case. Thus: if you have 200 deaths under one year for any month and 1,000 births for the same month, multiply 200 by 1,000 and then divide by 1,000 births, you will have 200 as the infant mortality rate for the corresponding month.

The next page (25) is especially prepared to be filled out by the District Health Officers. The estimated population and the total deaths under one year, the total births and birth rate, shall be stated for each municipality or town within his jurisdiction.

Page 26 is an epidemiological table that shall give the most common and communicable diseases occurring during the month. The cases and deaths by ages are requested in this table. For the preparation of this table, all the cases reported by notification cards, cases registered in the dispensaries, or otherwise reported or coming to the knowledge of the Health Officers, must be included in these reports. For each one of these cases, the corresponding individual file card should be kept in the records of the health officers. A death if not previously reported cases shall also be counted as a case occurring within the month corresponding to the report.

Pages 27, 28, and 29 refer to lepers and to the mental and physical defectives existing in your locality. These tables will be filled out in accordance with the footnotes given under each table. In general, all new cases recorded within the month are only the cases that should be entered in these reports.

Pages 30, 31, 32, and 33 refer to the number of vaccinations and other kinds of immunization performed within your district. The tables are self-explanatory and should be filled with especial care and accuracy. It will always be understood that the figures stated on these tables are the exact and faithful transcription of the official report of vaccination and inspections performed by your vaccinators and personnel. The table of vaccination against smallpox must also contain the vaccinations performed by the vaccinating party if it happens to be working within your district or province.

Your attention is further called to the tables of vaccination against cholera and typhoid fever. Under the column of "first injections" all first injections performed within the month should be given, classified by adults and children. Under the column of "second injections" and "third injections," it should be understood that all those that have received second injections or dose and third injections or dose of the vaccine within the month should be given. On the last page a statement of the vaccine received, used, and distributed by our office during the month corresponding to the report is requested.

Finally, the corresponding health officer shall sign the certificate duly dated on the last page of this report.

One copy of this report shall always be kept and filed in the office of the signing health officer.

V. JESUS  
*Director of Health*



## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-61 }

MANILA, October 5, 1922

*To all District Inspectors, District Health Officers, President of Sanitary Divisions, and all concerned:*

It seems to this Office that the real value of the immunization against typhoid and cholera and the necessity of giving the complete series of immunization to assure a relative immunity against these diseases, are not quite realized by some of the officers of the service. From the reports received in this Office, it was noted that while many persons were reported to have received one injection of the series of immunizations prescribed, very few, however, and sometimes none at all, appear to have been given second or third injections that are necessary to assure the process of immunization. The attention of some of the health officers have already been called to the fact that it is useless and at the same time unnecessary to spend money and time in vaccination performed in such an improper and inadequate manner. It is, further, dangerous for the community, that such a procedure be continued, for, apparently the people is given a false belief and confidence in the immunization which is so improperly done and which would result in discrediting not only the service but, also, the scientific principle of specific immunization.

In view of this fact, you are earnestly requested to complete the series of injections as directed in previous circulars for every person vaccinated. A file of all the persons vaccinated, stating the kind of vaccination, the dose and the number of injections given, and the date of the injections, with all the particulars for personal identification, should be kept in the office of the health officers which shall always be open to inspection and supervision of an authorized officer of the service.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-62 }

MANILA, October 18, 1922

*To all District Health Officers:*

There are enclosed herewith copies of a folder issued by the Committee on Cancer of the Philippine Islands Medical Asso-

ciation. It is requested that a copy of this folder be furnished each president of sanitary division in your province, who should be given specific instructions to make known the contents thereof to as many people as possible within this jurisdiction, especially to teachers of public schools who can inform their pupils and this in turn inform their parents and relatives of the aims of the Society and how it can help them. This subject may be touched when given conferences upon subjects contained in the list of those already prescribed for the weekly lectures. Extra copies for distribution among teachers and other prominent people of your province are enclosed.

Please see that these instructions are complied with to the letter.

V. JESUS  
Director of Health

## PHILIPPINE HEALTH SERVICE

MANILA, October 20, 1922

CIRCULAR }  
U-63 }

*To all Chiefs of Divisions, District Health Officers, and Presidents of Sanitary Divisions:*

Paragraph 23, 28, 30, 32, 34, 35, 37, 40, 46, and 52 of the present regulations governing the uniforms of officers and employees of the Philippine Health Service are hereby amended to read as follows:

PAR. 23. *Khaki uniform.*—The khaki uniform, as prescribed for officers, is the regular service uniform and will be worn when on duty, especially in the field, unless the white uniform has been prescribed or permitted as hereinafter stated.

Khaki cap shall be worn with plain long trousers or breeches and leather leggings.

Hat shall always be worn with breeches and leggings.

The khaki woolen shirt may be worn only on field duty.

PAR. 28. *Khaki uniform.*—The khaki uniform, as prescribed for sanitary inspectors and assistant sanitary inspectors, is the regular service uniform and will be worn on all occasions while on duty, except as specified in the following paragraph.

Khaki cap or hat may be worn with plain long trousers.

Breeches and woolen puttees shall be worn always with hat.

PAR. 30. *Blouse.*—Of khaki cotton cloth, or white duck or linen with white trousers, with two outside pockets below the waist and two breast pockets provided with flaps secured by removable buttons all pockets to be without bellows; collar to be standing, 4 to 5 centimeters high, depending upon the wearer, fastened in front with two clasps; body of blouse to be

made in five pieces, back piece to be without plait or seam, shoulder seams to be top of shoulder and so placed that they will be under the shoulder strap; side seams under arms to be left open at bottom 10 centimeters, the disconnected parts to, have a  $1\frac{1}{2}$  centimeters hem and the back piece to overlap the front by not less than 3 centimeters; the sleeve to have a cuff, the edge of the cuff on the inner side of the sleeve to be parallel to and from 6 to 9 centimeters from the lower edge of the sleeve; on the outer side of the sleeve the cuff shall run up to a point midway between the two sleeve seams, such point being not less than  $11\frac{1}{2}$  centimeters nor more than 14 centimeters from the lower edge of sleeve. The blouse to be buttoned with five removable regulation buttons. Two sets of eyelet holes will be worked in the collar on each side for corps devices so that collar ornaments will always be in the same place. Coat design shown in Plates II and III. For commission officers, the blouse shall be as per above description, but with shoulder strap to be of the same material sewed on the top extremity of the shoulder. For the khaki uniform of commissioned officers, the buttons shall be of gun metal; for the white uniform of commissioned officers, the buttons shall be of dead gilt. For the noncommissioned inspection personnel, all buttons shall be of polished silver or of untarnished white metal.

PAR. 32. *Buttons*.—As shown in Figures 4 and 5; to be circular; large size to be 2.22 centimeters in diameter and 6 millimeters thick at the center; small size, 1.59 centimeters in diameter and 3 millimeters thick at center; to be plane; to bear the service device in high relief in the center; to be mounted on a solid shank having an eye.

For commissioned officers' white uniforms, to be dead gilt metal.

For commissioned officers' khaki uniforms, to be of gun metal.

For noncommissioned inspection personnel on both khaki and white uniforms, to be of polished silver or untarnished white metal.

PAR. 34. *Cap insignia—commissioned officers. Badge*.—For khaki cap gun metal and for white cap gold or gilt metal consisting of the corps device with the eagle on the top and a ribbon at the bottom with the motto of the service (Figure 6.). To be worn on front center of cap.

*Band*.—A band of braid of the same color as the cap and about  $4\frac{1}{2}$  centimeters wide entirely around the cap.

*Chin strap*.—To be 1 centimeter in width, of gold lace stitched on leather, edge to edge, fastened at each end of visor with a gilt regulation button for white cap and a gun-metal button for khaki cap.

PAR. 35. *Cap insignia—noncommissioned inspection personnel. Badge*.—For khaki cap gun metal and for white cap gold or gilt metal cap device consisting of the coat of arms of the Philippine Islands, surrounded by a standard Philippine Health Service wreath. To be worn on front center of cap. No braid band is to be worn. The badge or cap ornament and the two buttons are to be of untarnished silver or white metal. The chin strap to consist of a green silk cord for all grades of assistant sanitary inspectors and of a silver cord for all grades of sanitary inspectors.

PAR. 37. *Collar ornaments*.—Except for sanitary inspectors, the corps device which is in high relief in metal and 2.9 centimeters in diameter (as shown in Figure 1) shall be worn midway between top and bottom of collar, 5 centimeters from the edge to the center of the device. The division device, Figure 2, to be made of metal, 2.2 centimeters in diameter, shall be placed 5 centimeters behind from the center of the corps device to the

center of the division device as per Plate I; the letter in the center of the division device indicates the different division of the Service; viz. H, Hospital; F, Field Service; D, Dentist; A, Assistant Surgeon or President of Sanitary Division. The staff shall wear on the same device, Figure No. 2, with a sun in the center without lettering.

For commissioned officer: White uniform, Dead gilt; Khaki uniform, Gun metal.

For the noncommissioned inspections personnel: The service device (as shown on Figure 3) being worn  $2\frac{1}{2}$  centimeters to the front of collar. White and Khaki uniforms, polished silver or untarnished white metal buttons and service device.

PAR. 40. *Hat*.—For commissioned officers a gold hat cord 6 millimeters in diameter, with a green olive at each end of the cord will be worn.

PAR. 46. *Insignia of rank*.—The insignia of rank for officers shall be as follows (Plate IV):

(a) *The Director*.—One silver star of five rays, of such size that the points of the rays will fill a circle  $2\frac{1}{2}$  centimeters in diameter. One ray of the star to point toward the collar. (Plate IV.)

(b) *Assistant Director*.—A silver spread eagle, 6 centimeters wide between the tips of wings; distance from tips of wings to center of talon on each side, 3.2 centimeters; from top of head to bottom of design, 3.2 centimeters. The *insignia* for the right side having in the right talon and olive branch and in the left a bundle of arrows. The extreme width from tip of narrow head to olive branch being 4 centimeters. These insignia shall be made in pairs, rights and lefts, and the eagle shall face to the front on each shoulder. (Plate IV.)

(c) *Chief of Division*.—A seven-pointed silver oak leaf with stem; 2.9 centimeters long from the tip of the stem to the tip of the leaf; 2.7 centimeters wide at the widest point. The top of the leaf shall point toward the collar. (Plate IV.)

(d) *Senior medical inspector*.—A gold oak leaf of the same size and design, and to be worn in the same manner as for chief of division. (Plate IV.)

(e) *Medical Inspectors*.—Two silver bars, each 2.9 centimeters long and 1 centimeter wide; the bars being parallel, and 1 centimeter apart. The bars to be worn with the long axis in a line from front to rear. (Plate IV.)

(f) *Senior surgeon*.—One silver bar of the same size and to be worn in the same manner as for medical inspector. (Plate IV.)

(g) *Surgeon, assistant surgeon, physician, president of sanitary division, and dentist*.—A gold bar of the same size and to be worn in same manner as for medical inspector.

(h) *President of sanitary division not physician*.—Presidents of sanitary divisions not physicians will wear the uniforms of a commissioned officer but without shoulder insignia other than the shoulder strap itself.

(i) *Noncommissioned inspection personnel*.—For the noncommissioned inspection personnel the *insignia* of rank will be the series of chevrons as per Plate V. The device is to be permanently sewed to the sleeve midway between the elbow and the shoulder, points down, with the service device erect. For khaki uniforms the chevrons will be of khaki cloth, each arm of the chevron to be 4 centimeters long. For white uniform white chevrons will be worn, of the same material as the coat, permanently

sewed to the sleeve, and of the same size as the chevron for the khaki uniform.

PAR. 52. For commissioned officers the *insignia* of rank will be worn on the hat instead of on the collar and the corps device on the left side.

(Sgd.) V. JESUS  
*Director of Health*

Respectfully transmitted, approved.

(Sgd.) E. A. GILMORE  
*Secretary of Public Instruction*

Approved:

(Sgd.) LEONARD WOOD  
*Governor-General*

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## PHILIPPINE HEALTH SERVICE

MANILA, November 7, 1922

CIRCULAR }  
U-64 }

*To all District Health Officers:*

An examination of the records of this office shows that only four District Health Officers have to this date submitted their efficiency reports for presidents of sanitary divisions for the six months' ending June 30, 1922. Attention is invitetd to Circular L-29, series 1913, and Q-29, series 1918, regarding this matter. All concerned are directed to submit to this office without delay the efficiency reports corresponding to the above-mentioned period. Subsequent efficiency reports should be transmitted immediately after the expiration of the six months' period to which such reports pertain.

S. V. DEL ROSARIO  
*Assistant Director of Health*  
*(For and in the absence of the Director)*

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## PHILIPPINE HEALTH SERVICE

MANILA, November 6, 1922

CIRCULAR }  
U-65 }

*To all District Health Officers:*

With a view to adapting exigencies of the service with the provisions of law, District Health Officers are hereby directed not to state in the appointments of sanitary inspectors, the headquarters to which such sanitary inspectors will be assigned.

The headquarters should be given by special orders, copies of which to be furnished this office. Form No. 3, attached to Circular T-75, series 1921, of this service, should be amended, as per attached sample. This procedure will permit District Health Officers to mobilize personnel and meet emergencies in their districts.

S. V. DEL ROSARIO  
*Assistant Director of Health*  
*(For and in the absence of the Director)*

FORM No. 3

(TEMPORARY APPOINTMENT OF SANITARY INSPECTOR PAYABLE FROM THE HEALTH FUND)

THE GOVERNMENT OF THE PHILIPPINE ISLANDS  
 DEPARTMENT OF PUBLIC INSTRUCTION  
 PHILIPPINE HEALTH SERVICE  
 OFFICE OF THE DISTRICT HEALTH OFFICER  
 ..... HEALTH DISTRICT

.....  
 (Headquarters)

.....  
 (Province)

M .....

....., 192....

Pursuant to the provisions of section 1008 of the Revised Administrative Code and upon the recommendation of the undersigned, you have been appointed by the Provincial Board in Resolution No. ...., series ....., a temporary sanitary inspector in the Province of ..... with compensation at the rate of..... (P.....) pesos per month, payable from the Health Fund of the Province of ..... in accordance with Resolution No....., series of ....., of the Provincial Board of said province providing salary for the position; the appointment to take effect .....

In this connection, your attention is invited to section 279-b of the Administrative Code of 1917, which provides that temporary and emergency employees are not entitled to leave of absence.

Very respectfully,

.....  
*District Health Service*

Authorized under section 2, Civil Service Rule VI.

.....  
*Director of Civil Service*

Approved:

.....  
*Secretary of Public Instruction*

## PHILIPPINE HEALTH SERVICE

MANILA, November 10, 1922

CIRCULAR }  
U-66 }

*To all Officers and employees charged with reporting accounts to the Philippine Health Service:*

In connection with the closing of the accounts of the Philippine Health Service, for the year 1922, all Chiefs of Divisions, Chiefs of Hospitals, District Inspectors, District Health Officers, Chiefs of Vaccinating Parties, Medical Inspector in charge of Stations in the City of Manila, and others charged with submitting accounts or of reporting same to the Central Office, are hereby directed to observe as usual, the provisions of paragraph 7 of Circular P-43 of this office dated October 4, 1917.

In addition, a financial statement showing the estimated expenditures necessary for the closing of the books for 1922, should be prepared by all officers concerned for submission to this office immediately, in the manner shown in the Exhibit enclosed.

If no expense is to be incurred or reported, as required by this circular, notification of such fact should be also made.

After the report called for by the accompanying exhibit has been submitted, if any overestimate or underestimate should be found thereon at any time prior to December 31, 1922, this office should be notified as soon as the error is found, in order to adjust the accounts. After December 31, 1922, a final report of all accounts that might have been omitted in the November or December statements should be made, thereby insuring a complete data of all accounts, payable by the Philippine Health Service during the current year 1922. District Health Officers should, whenever necessary, secure the coöperation of the provincial treasurers (or municipal treasurers) from whose offices all data concerning Philippine Health Service obligations to the provinces or municipalities, should be available. Letters asking for data may be sent by District Health Officers to the provincial treasurers regarding this matter. Estimate should, as much as possible, be made to conform to actual requirements.

Officers and employees are advised that, in accordance with present accounting regulations, payment for any accounts pertaining to the current year, that are not taken up as of December 31, 1922, but subsequently presented, may be refused payment by this service if no money has been set aside for the

purpose, as it is not possible to pay from the appropriation of any fiscal year, accounts of back years. All officers and employees, charged with reporting accounts, are therefore cautioned, that failure on their part to submit financial reports as required herein, or that required by paragraph 7 of Circular P-43, may result in financial loss to the responsible party.

S. V. DEL ROSARIO

*Assistant Director of Health*

*(For and in the absence of the Director)*

**Exhibit for Circular U-66**

Items	Estimated expenses November 1-30, 1922	Estimated expenses December 1-31, 1922	Actual expenses as of October 31, 1922, already billed (or vouchers already submitted) to the P. H. S. but are still unpaid			Actual expenses as of October 31, 1922 not yet billed or vouchers not yet submitted to the P. H. S.
			Amount	Bill No.	Voucher No.	
<b>I. Expenses for lepers in the Provinces: (To be reported by district Health Officers):</b>						
1. Lepers' subsistence .....						
2. Rentals of houses or grounds occupied by lepers .....						
3. Wages of cooks, servants, etc. in case of some leper hospitals .....						
4. Transportation of lepers, and their conductors, while the former are being apprehended, and while enroute to concentration camps, including subsistence .....						
<b>Totals .....</b>						
<b>II. Traveling expenses of District Health Officers and District Inspectors:</b>						
1. (Enumerate travels that are necessary to be made such as can be anticipated and give the estimated cost of each) .....						
2. Per diems for those travels .....						
<b>Totals .....</b>						

**NOTE:** Number of lepers subsisted at the expense of the Philippine Health Service at this writing, November ....., 1922 ..... P  
 Estimated number of lepers to be subsisted as of November 30, 1922 .....  
 Estimated number of lepers to be subsisted as of December 31, 1922 .....  
 Rate at which subsistence is charged per leper per day, by the Province .....  
 The province collects about ..... lepers per month. The estimated average cost per month to the Philippine Health Service of apprehending lepers in this province, not including subsistence while already confined in the leper house is .....



## Exhibit for Circular U-66—Continued

Items	Estimated expenses November 1-30, 1922	Estimated expenses December 1-31, 1922	Actual expenses as of October 31, 1922, already billed (or vouchers already submitted) to the P. H. S. but are still unpaid			Actual expenses as of October 31, 1922 not yet billed or vouchers not yet submitted to the P. H. S.
			Amount	Bill No.	Voucher No.	
III. Consumption of supplies and materials (of District Health Officer and District Inspectors):						
1. Number of units of anticholera vaccines, to be requested. ....						
2. Number of units of antityphoid vaccines to be requested. ....						
3. Number of units of mixed anticholera and antityphoid vaccines. ....						
4. Number of units of smallpox vaccines to be requested. ....						
5. All others (enumerate all supplies and materials and all other expenses chargeable against the P. H. S. Inular General Funds)						
Totals. ....						
IV. Vaccinating Parties (to be reported by Chiefs of Parties):						
1. Traveling expenses of vaccinators, Chiefs and Assistant Chiefs of Party, enumerating those for each person. ....						
2. Number of units of vaccine virus to be required. ....						
3. All others (enumerate all expenses which are to be incurred chargeable to the Philippine Health Service. ....						
Totals. ....						

## PHILIPPINE HEALTH SERVICE

MANILA, November 14, 1922

CIRCULAR  
U-67 }

*To all Chiefs of Offices, Hospitals and Divisions, and District Health Officers:*

My coöperation and assistance in making the Red Cross drive for the current year a success has been requested by Acting Director Gil of the Bureau of Civil Service, member of the Committee to canvass the Philippine Health Service and the Bureau of Civil Service. You are requested to solicit contributions for the Red Cross from among the officers and

employees under you. The undersigned cannot too strongly recommend that every one connected with this service should become a member. The memberships are as follows:

Patron .....	₱200.00
Life .....	100.00
Sustaining .....	20.00
Contributing .....	10.00
Annual .....	2.00

The names of the subscribers should be listed on a sheet together with the class of membership for which each desires to enroll. All remittances should be made to Mr. Mamerto Tianco, Chief Clerk, Philippine Health Service. A receipt for the contributions as well as a Red Cross button will be issued from this office for each subscriber.

In this connection, it should be stated that His Excellency, the Governor-General, has issued Proclamation No. 47, current series, designating the period from November 11 to November 20, 1922 as the time for the annual Roll Call of the Philippines Chapter of the American Red Cross in the Philippine Islands.

Remittance should be sent to this office soon after November 20, 1922.

S. V. DEL ROSARIO

*Assistant Director of Health*

*(For and in the absence of the Director)*

## PHILIPPINE HEALTH SERVICE

MANILA, November 2, 1922

CIRCULAR }  
U-68 }

*To all Chiefs of Offices and Hospitals, District Health Officers,  
Medical Officers in charge of Stations, and others concerned:*

The Bureau of Civil Service announces the following examinations to be given in Manila during the calendar year 1923:

Assistant sanitary inspector (English and Spanish) .....	March 10
Trained nurse (English) .....	May 4-5
Surgeon (English and Spanish) .....	May 10-11-12
Senior surgeon (English and Spanish) .....	May 10-11-12

All concerned are directed to enjoin all temporary assistant sanitary inspectors and nurses under their respective supervision stationed in the City of Manila to prepare themselves to take the assistant sanitary inspector and trained nurse

examinations above scheduled in order that they may have a permanent status in the service if they pass the examination. Temporary assistant sanitary inspectors and nurses who fail to take, or qualify in, the examination will have to be replaced in so far as possible by eligibles certified to this service by the Director of Civil Service.

Temporary assistant surgeons, presidents of sanitary divisions, and other temporary physicians at present in this Service possessing the required qualifications which are enumerated below are directed to take the examination for surgeon mentioned above.

The present entrance salary is ₱1,800 per annum, with promotion, on further examination after three years' service, to the grade of senior surgeon. Officers when assigned to duty in hospitals may receive quarters and subsistence. As there are several vacancies at present, the chances of appointment of successful candidates are good.

Candidates for examination shall be natives of the Philippine Islands or citizens of the United States, shall be of good repute and character, and graduates of a reputable medical college and duly registered in the Board of Medical Examiners.

They must not be less than 23 nor more than 32 years of age, and must have one year's hospital service or two years in professional practice before permanent appointment. An assistant surgeon of the Philippine Health Service whose age is more than 32 years and less than 50 years, and who, at the time, has served continuously for the five years last past, may be examined for appointment as surgeon. The applicant must exhibit his diploma or certified copy thereof to the Director of Civil Service at the time of filing his application for examination to the effect that he is duly registered in the Board of Medical Examiners as qualified physician and allowed to practice medicine in the Islands.

In addition to the information required by the form of application for examination furnished by the Bureau of Civil Service, the applicant shall furnish testimonials from at least two persons as to his professional and moral character, and shall also state, concisely, the several branches studied by him at the institution at which he received his general education, including his knowledge of general literature and of ancient and modern languages; the time when he began the study of medicine; the opportunities he has had of engaging in the practice of medicine, surgery and obstetrics, or of receiving clinical instruction; and whether he has been a resident physician

or interne in a civil military hospital and the opportunities he has had for doing public health work.

Physical examination of all candidates for examination will be conducted by a board of commissioned officers convened for the purpose by the Director of Health. Candidates failing in the physical examination will not be admitted to the professional examination. Candidates for the examination must present themselves for physical examination two days before the examination is held.

Any one of the following defects will be sufficient for rejection, viz.: Cachexia, or apparent predisposition to any constitutional disease; permanent defects of either of the extremities or articulations, including defects of gait, flat foot, badly bowed legs, knock-knees, unnatural curvature of the spine, impaired vision, colored blindness, chronic disease of the visual organs, epilepsy, insanity, chronic disease of the ears, deafness, chronic nasal catarrh, polipi, chronic ulcers, or cicatrices of old ulcers likely to break out afresh, chronic cardiac affections, insufficient chest expansion, hernia, sarcocele, hydrocele, varicocele (unless slight), structure of the urethra or rectum, fistula in ano, hemorrhoids, varicose veins in lower limbs (unless slight), stature less than 149.8 cm., or more than 187.9 cm., and any marked abnormality of speech or facial disfigurement.

The written or professional examination will consist of the questions on—

1. Anatomy.
2. Physiology.
3. Chemistry.
4. Materia medica and therapeutics.
5. Practice of medicine.
6. Practice of surgery.
7. Obstetrics and diseases of women.
8. Hygiene.
9. Pathology and bacteriology.
10. Tropical sanitation.

The applicant will also be required to report on at least two selected cases at a hospital—one medical and one surgical case and, if practicable, will be required to perform surgical operations on a cadaver.

To become eligible for appointment, an applicant must make an average of 70 on the entire examination and not less than 50 on any subject.

Appointments will not be made to any particular station, but to the general service subject to change of station as the expediency of the service may require.

Surgeons who are eligible for examination may take the promotional examination for senior surgeon herein announced. The subjects for the senior surgeon examination are:

1. Practice of medicine.
2. Practice of surgery.
3. Obstetrics and diseases of women.
4. Hygiene.
5. Epidemiology.
6. Pathology and bacteriology.
7. Laws and regulations.

Competitors in the surgeon and senior surgeon examinations should present themselves for physical examination to the Central Office, Philippine Health Service, on the 7th and 8th of May, 1923.

V. JESUS  
*Director of Health*

### PHILIPPINE HEALTH SERVICE

CIRCULAR }  
U-69 }

MANILA, November 16, 1922

*To all Chiefs of Divisions, Offices, Hospitals, and others concerned:*

In connection with the preparation of the annual reports, reference is made to the outline as contained in Circular U-14, March 1, 1922, of which the present Circular is made a supplement both to become operative in the preparation of the annual report for the year 1922.

The following changes are hereby introduced:

I. Page 2, under.

(d) Medical relief.

1. Provincial and penal hospitals (for Divisions B and C only).
2. Dispensaries.
3. Philippine Health Nursing and Social Service.
4. Dental Service.

(e) General sanitation.

1. Inspections.
2. Nuisances abated (specification of).
3. Sanitary orders (number issued—complied with).
4. Penalties imposed (yearly aggregate amount).
5. Water supplies.

- (a) Natural sources
- (b) Water works
- (c) Artesian wells
- (d) Dug wells

Survey of.—Causes of pollution. Methods of purification employed. New supplies.—Supplies permanently condemned.

## I. Page 2, under—Continued.

## (e) General sanitation—Continued.

6. Markets and slaughterhouses—Improvement, if any, in number and condition.
7. Garbage—Methods of collection and disposal.
8. Sewage disposal—Progress attained.
9. Licensed businesses. (Action taken on applications therefor.)
10. School inspection.

## II. Page 5, under.

## V. VITAL STATISTICS.

With a view to securing a uniform basis for any computation from which averages of mortality, morbidity, or other are to be drawn, the population of both the City of Manila and the provinces (with their political sections and units) during *intercensal years* shall hereafter be obtained by adding to the population figures, as furnished by the latest Official Census, such increase in population from one year to another as is found to correspond to each of them by application of the *arithmetical method*. Standard figures for estimated population so obtained for *intercensal years* shall be prepared, published, and widely distributed by the Office of Statistics of the Philippine Health Service to such Divisions and Offices thereof as may be concerned in the preparation of special local statistics in connection with the Annual Report of the Philippine Health Service not later than the first week of January of the year next to the one for which the annual report is being prepared.

Obviously, the preceding rule shall not apply to any year for which an Official census has been published.

- III. Partial "annual reports" for the previous year as prepared by the Divisions and Offices concerned, shall be submitted to the Assistant Director of Health not later than March 31 of each year.

V. JESUS

Director of Health

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## PHILIPPINE HEALTH SERVICE

MANILA, November 16, 1922

CIRCULAR }  
U-70 }

*To all District Inspectors, District Health Officers, Presidents of Sanitary Divisions, and others concerned:*

In connection with Garden Day celebration in your respective districts, you are earnestly urged to participate in as many of them as is possible within your resources in order that the elements of sanitary living may be brought home before the people thru practical exhibits, demonstrations, cines, and lectures. It is very convenient to have at hand for this purpose miniature models with regard to the sources of pure water,

disposal of excreta, garbage and refuse, housing and living conditions, and make a special emphasis with regard to the sources of infection, modes of transmission, methods of prevention of an infectious disease prevalent in the particular locality where the fair is held.

Occasions like the above should be looked upon as an opportunity to preach the gospel of clean thinking and sanitary living.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, November 20, 1922

CIRCULAR }  
U-71 }

*To all District Health Officers, Presidents of Sanitary Divisions, and other Health Officers concerned:*

The Philippine Health Service has taken steps to obtain the coöperation of the Bureau of Education and the Philippine Constabulary for checking up the results of vaccination among school children and other persons by reporting to health officers such persons as are not properly vaccinated whom they may find. The Philippine Constabulary and the Bureau of Education have promised their coöperation within their capabilities.

It is, therefore, directed that special efforts be made by health officers to vaccinate promptly persons reported as not properly vaccinated by the Philippine Constabulary and by officers and teachers of the Bureau of Education.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, November 20, 1922

CIRCULAR }  
U-72 }

*To all District Health Officers and Sanitary Inspectors:*

The following announcement of the Bureau of Civil Service is hereby transmitted to all concerned for their guidance:

The Bureau of Civil Service announces that hereafter the following requirement will govern admission to the assistant sanitary inspector examination:

*Assistant sanitary inspector.*—Only those who have completed the intermediate course or its equivalent, and who are physically sound and in

good health will be admitted to this examination. A physical and medical examination will be required.

V. JESUS  
*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, November 27, 1922

CIRCULAR }  
U-73 }

*To all Chiefs of Divisions, District Inspectors, District Health Officers, and other Officers in the Service.*

For your information and guidance, there is transcribed herewith a circular and a program issued by the Public Welfare Commissioner referring to the Clean-up Week of 1922.

Inasmuch as the work as outlined for Clean-up Week has a great deal to do with public sanitation, the plan given in the pamphlet on Clean-up Week is hereby amended making the Director of Health the Chairman of the National Advisory Committee, and the provincial district health officer, in addition to being a member of the Provincial Advisory Committee, shall be ex-officio technical adviser of the Provincial Director. In like manner, the local health officer, in addition to being a member of the Municipal Advisory Committee, shall be the ex-officio technical adviser to the Municipal Director. After each municipality has been divided into districts, the work of the policeman in each district, especially in scoring, shall be done with the advice and assistance of the sanitary inspector, if there is one.

In the City of Manila, the Director shall be the Chief of Sanitation of Manila, Philippine Health Service, assisted by the Chief of Police.

\* \* \* \* \*

In order that the work may be done more systematically, the following program is suggested:

*December 16: Organization day.*—Planning and organizing local forces; grading and appraising tasks and workers, fitting task to worker and worker to task.

*December 17: Opening day.*—Parade or mass meeting, music, reading of message from the Governor-General, and speeches.

*December 18: Weed-rubbish day.*—Weed pulled or cut off, burned or destroyed; shade or fruit trees and ornamental plants trimmed, re-arranged, or new ones planted.

*December 19: Draining day.*—Stagnant pools drained or filled; lawns and walks kept in fine shape.

*December 20: Privy day.*—Privies cleaned and repaired, or new ones built. Two or more families may be advised to construct an outhouse for their common use.

*December 21: Repairing day.*—Roofs, walls, and floors of buildings and fences, repaired, painted, or renovated.

*December 22: House furnishings day.*—Chairs, benches, tables, beds, etc., washed, dusted, or sunned.



*December 23: Scrubbing day.* Floors, walls, ceilings, etc., scrubbed, washed, or waxed.

*December 24: Scoring day.*—Judging and scoring.

*December 25: Closing day.*—Parade or mass meeting, music, reading of Message from the Governor-General, speeches, and distribution of prizes.

It is hereby directed that all officers and employees in the Philippine Health Service give their fullest coöperation in order to make the 1922 Clean-up Week a complete success. To this end, in so far as compatible with the above outlined program, officers and employees of this Service shall emphasize their work of coöperation in finding and suppressing nuisances or insanitary conditions caused: (a) By improper handling of drinking water; (b) By mosquito breeding places; (c) By domestic animals; and (d) By defective or lack of disposal of refuse.

After Clean-up Week is over, a report shall be submitted to this office by the corresponding officer stating the total number of nuisances or insanitary places found during the week, and the total number of nuisances or insanitary conditions suppressed, in accordance with the classification outlined in the preceding paragraph.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, *December 4, 1922*

CIRCULAR }  
U-74 }

*To all Commissioned Officers, Philippine Health Service:*

Supplementary to Circular U-68, current series, of this service, it is hereby announced that examinations for Medical Inspector of the Commissioned Service of this service will be held by the Bureau of Civil Service in Manila on May 11-12, 1923. Senior Surgeons may, if they so desire, take this examination. In order to be recommended for promotion, vacancies in this rank must exist and the competitor must obtain an average mark of 70 per cent in the following branches and not less than 50 in any one branch:

1. Practice of medicine.
2. Practice of surgery.
3. Hygiene.
4. Hospital and land quarantine management.
5. The laws and regulations of the Service.

They shall prepare and submit with their examination papers above-mentioned, a thesis of not less than 5,000 words on some professional subject of their own selection.

In this connection, attention is directed to the latter part of paragraphs 21 and 29 (Test No. 3, XIX) of the Regulations Governing Examinations, Appointments and Promotions of Candidates and Commissioned Officers, Philippine Health Service and to section 971 of the Administrative Code relative to certain disqualifications for examination and promotion.

Competitors should present themselves for physical examination to the Central Office, Philippine Health Service on the 7th and 8th of May, 1923.

V. JESUS  
*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, December 4, 1922

CIRCULAR }  
U-75 }

*To all District Health Officers except those embraced in the Division of Mindanao and Sulu:*

With the end of keeping a complete roll of all personnel under this service, District Health Officers, Chiefs of Hospitals and offices, and other officers and employees who have control of personnel are directed to furnish this office beginning January 1, 1923, with a complete statement, in duplicate, showing names, designations, salaries, stations, etc., of all personnel supervised by or assigned to their respective offices as of that date. Similar statements including subsequent changes in personnel should be transmitted to this office on the first day following the end of every quarter of each calendar year to begin April 1, 1923. Reports of this nature should, therefore, henceforth be submitted on every first day of the months of January, April, July, and October of each year. Sample of this report (Form No. 1) is attached. On the first day of the intervening months, a report, also in duplicate, showing appointments (permanent and temporary), separations and changes of stations and during the preceding month, leaves and absences, should likewise be prepared and transmitted to this office. Sample of this report (Form No. 2) is attached.

These reports of changes in personnel supersedes that required in page 2 of Provincial Form No. 70 of this service; therefore same need not be filled out.

It must be understood that this shall not in any way affect the monthly reports of District Health Officers to the Provincial Treasurer on the same matter in connection with the report of the province to the Bureau of Civil Service on Civil Form No. 3.

V. JESUS  
Director of Health

PHILIPPINE HEALTH SERVICE  
..... HEALTH DISTRICT  
PROVINCE OF .....

....., 192....

*A complete statement showing names of all personnel employed or assigned in this province for health and sanitary inspection purposes as of January, April, July, October 1, 192...., including changes and absences during the month.*

[To be submitted to the Director of Health on the first of January, April, July, and October of each year]

	Name	Rank	Salary	Additional salary or allowances, if any	Dates absent
District Health Officer. . .					
Asst. to Dist. H. Officer.					

OFFICE OF THE DISTRICT HEALTH OFFICER INCLUDING  
THE PROVINCIAL LABORATORY

Positions provided in current year plantilla	Names of incumbents	Salary received	Funds from which payable	Remarks re-changes	Dates absent

SANITARY DIVISIONS AND MUNICIPAL BOARDS OF HEALTH, IF ANY

Division number	Municipalities comprised	Names of incumbents	Salary received	Headquarters	Remarks re-changes	Dates absent

NURSES, SANITARY INSPECTORS, AND OTHER EMPLOYEES EXCLUDING THOSE  
ALREADY MENTIONED

Positions provided in current year plantilla	Names of incumbents	Salary received	Station	Fund from which payable	Remarks	
					Changes	Absences

*A complete statement showing names of all personnel employed, etc.—Contd.*

### HOSPITALS AND DISPENSARIES

Positions provided in current year plantilla	Names of incumbents	Salary received	Station	Fund from which payable	Remarks	
					Changes	Absences

### SPECIAL ASSIGNMENT TO THIS OFFICE OR PROVINCE

Name of employee	Designation	Office in which formerly employed	Salary	Fund from which payable	Date assigned

### INSTRUCTIONS

1. If more space is needed under any heading, use a second sheet of paper.

2. Remember that names of *all* employees in the province during the month under the supervision of the District Health Officer or whose services are utilized for health or sanitary inspection should be included. No omission of names should therefore be made.

3. To distinguish regular or permanent employees from those under temporary status and to show allowances received in addition to salary, write

p. a.—to indicate that the employee is under a permanent status

p. m.—to indicate that the employee is under a temporary status

a. —to indicate that the employee receives subsistence

sq. —to indicate that the employee receives subsistence and quarters

sql. —to indicate that the employee receives subsistence, quarters, and laundry

immediately after the salaries of each; e. g. ₱480 p. a., sq., meaning that the employee is under a permanent status and receives subsistence and quarters in addition to the salary.

4. Under "Positions provided in current year plantilla," state all items included in the plantilla of the province as approved.

5. Under "Remarks re-changes," state whether the employee has resigned, separated, suspended, transferred, died or dismissed, always giving date; e. g. Res. 1-8-23, meaning that the employee resigned on January 8, 1923.

6. Under "Funds from which payable," state whether general, health fund, insular or insular aid.

I hereby certify that the foregoing report is correct, and that it shows the names of all employees in this province whose services are utilized for health or sanitary inspection purposes and all changes and absences in the force of this province during the month for which the same is submitted.

.....  
*District Health Officer*

**PHILIPPINE HEALTH SERVICE**  
**HEALTH DISTRICT**  
**PROVINCE OF .....**

....., 192....

*Report of changes and absences for the month of ....., 192....  
of the District Health Officer of .....*

(Name of province)

[To be submitted to the Director of Health on the first of February, March, May, June,  
August, September, November, and December of each year]

**PROBATIONAL APPOINTMENTS**

Date of entrance to duty	Name in full	Place of birth	Date of birth	Position	Salary	Date appointment submitted

**TEMPORARY AND EMERGENCY EMPLOYEES**

Date of entrance to duty	Name in full	Place of birth	Date of birth	Position	Salary	Date appointment submitted

**PROMOTIONS, REDUCTIONS IN GRADE, REINSTATEMENTS INCLUDING SPECIAL ASSIGNMENTS AND TRANSFERS TO THIS OFFICE**

Effective date	Name in full	Position	Salary	Former position and salary	Office in which formerly employed	Date appointment submitted

**SEPARATIONS AND TRANSFERS FROM THIS OFFICE**

Effective date	Name in full	Position	Salary	Cause	Character of services	Date separation papers sent

**ABSENCES AS SHOWN BY DAILY TIME RECORD**

Name in full	Dates absent	Number of days			Date application was submitted
		Accrued leave	Vacation leave	Without pay	

**INSTRUCTIONS**

1. All entries on this report must be arranged under the proper head in **ALPHABETICAL ORDER**. If there are no absences or changes to report, the form must nevertheless be signed and forwarded with the

words "no changes" or "no absences" as the case may be, written under each head.

2. If more space is needed under any heading, use a second sheet of paper.

3. To distinguish permanent employees from temporary employees, see Instruction No. 3 in Form No. 1 attached to this circular.

4. Under column "salary" in each heading, distinguishing signs referred to in the preceding instruction to distinguish temporary from permanent employees should be made. Always indicate whether the employee reported received subsistence, subsistence and quarters, etc.

5. Under heading "probational appointments," do not include names of temporary and emergency employees.

6. Under heading "separation and transfers from this office," report all removals, suspensions, resignations, or death among permanent and temporary employees, and separations by reason of transfer to some other Bureau or office or province.

7. Under heading "absences, etc.," report absences of all employees, permanent and temporary.

When leave has been granted but not taken, notation to that effect should be made on this form. Undertime and absences for one-half day should be reported. In case of absences for one-half day, notation should be made whether it occurred in the morning or in the afternoon by writing "a. m." or "p. m." immediately after the date. In case of absences of temporary employees, state under column "Date application was submitted" whether permission was granted to the employee concerned.

I hereby certify that the foregoing report is correct, and that it shows all changes and absences in the force of this province during the month for which the same is submitted.

-----  
District Health Officer

## PHILIPPINE HEALTH SERVICE

MANILA, December 6, 1922

CIRCULAR }  
U-76 }

*To all Private Physicians, Superintendents and Chiefs of Hospitals: and Health Officers, Philippine Health Service, Manila and Provinces:*

Since the last epidemic of Influenza of 1918, few sporadic cases diagnosed as Lethargic Encephalitis have been reported, as

**Epidemic Encephalitis** having occurred in the City of Manila.  
(Lethargic)

Within the last two or three weeks, however, Encephalitis has been noticed to prevail in the city to the extent that not less than 20 cases with about 30 per cent mortality have been reported. The sudden occurrence of such

relatively large number of cases within a short period of time aroused the attention and interest of this office taking into consideration that in all probability many more cases exist in the City of Manila without being reported.

Epidemic Encephalitis is not listed among the reportable diseases. In view, however, of the possibility of this disease attaining an epidemic form and with the intention of making such epidemiological and clinical investigations of cases occurring in the city, physicians and directors and chiefs of hospitals are requested to coöperate with this office by reporting to this Office all suspected cases of Encephalitis under their treatment and care. The report should be made on the notification card of communicable diseases as is usually done with the other communicable diseases.

For the information and guidance, the attention of all concerned is called to the following facts in connection with the cases reported and seen in the City of Manila.

Case usually begins suddenly with some pains, insomnia, malaise, headache, motor disturbances, lethargy, ocular symptoms, asthenia, profuse sweating, and exanthems sometimes. Symptoms are usually accompanied with fever generally from 37.5 to 38.5° C. It has been noticed that the most prevalent cases are the myoclonic choreiform types; lethargic types are not so frequent. Adults and children are equally affected altho no case has as yet been seen in persons above 30 years old except in *one followed by death*. More cases in males have been seen than in females.

V. JESUS

*Director of Health*

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## PHILIPPINE HEALTH SERVICE

MANILA, December 5, 1922

CIRCULAR }  
U-77 }

*To all Health Officers and others concerned:*

Circular U-60 is hereby amended excluding P. H. S. Form No. 59 from amongst the forms abrogated thereon. The preparation of the monthly report of vaccination on the form in question shall therefore be continued in addition to the preparation of data for page 30, Provincial Form No. 70.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, *December 21, 1922*CIRCULAR }  
U-78 }

*To the Physicians in charge of Health Districts of Manila, and to the Chief, San Lazaro Hospital, Manila:*

Physicians in charge of the Manila Health Districts and the Chief, San Lazaro Hospital, are hereby directed to report to this Office any fatal case of *Encephalitis lethargica* in their corresponding districts and hospital, in which the body of the deceased person is to be buried at public expense and which is unclaimed by relative or friends for a period of 48 hours after death, in order that said body may be devoted by the undersigned to scientific investigation for the advancement of medical science, in accordance with section 1107 of the Administrative Code of 1917.

V. JESUS

*Director of Health*

## PHILIPPINE HEALTH SERVICE

MANILA, *December 28, 1922*CIRCULAR }  
U-79 }

*To all Commissioned and Non-Commissioned Medical and Sanitary Personnel:*

This circular is issued for the purpose of giving such information as is necessary for the correct interpretation of the contents of Circular U-63, current series, providing for certain amendments to the service regulations governing the uniforms of officers and employees of this service, and for the proper compliance with its provisions and allied requirements that should be made clear for guidance of all concerned.

It is understood that in all respects, paragraph 2 of Chapter 1—General Uniform Regulations—

Officers and employees are required to keep themselves supplied with all articles of uniform and equipment as prescribed by the following regulations. All uniforms are obligatory unless stated to be optional.

shall hereafter be complied with. Circular O-1 as regards permission given to Presidents of Sanitary Division, or local



health officers to use uniforms or not at their option is not abolished. The use of uniform is now obligatory, except as provided in paragraph 27 of Service Uniform Regulations.

If no olive khaki is obtainable plain khaki may be used.

The white uniform should be used after 4 p. m. unless prevented by the exigencies of the service and on Sundays and holidays it may be used the whole day, also in occasions, such as celebrations, etc., requiring the attendance with white uniform.

Officers and sanitary inspectors shall change all their *insignias* and buttons according to the new regulations as soon as practicable.

Orders for insignias, buttons, and other uniform accoutrements should, as heretofore, be made thru official channels.

The following articles are obtainable at cost from Brias Roxas, Inc., 63-67 Escolta, Manila:

Caps, Hats, Hat cords, Cap device for sanitary inspectors, Shoulder *insignias*.

From Viuda e Hijos de Crispulo Zamora, 347-351 R. Hidalgo, Manila, the following articles are obtainable by purchase:

Articles (per piece)	Oilt	Oxidized	Nickel- plated.
Cap device .....	P2.00	P1.60	.....
Collar device .....	1.00	.80	.....
Collar device, departmental .....	1.00	.50	.....
Collar device, personnel .....	.....	.....	P0.45
Buttons, large .....	.20	.15	.15
Buttons, small .....	.15	.10	.10
Shoulder <i>insignias</i> .....	.....	.....	.....

Attention is invited to the fact that the green shoulder strap for officers is no longer to be used as same has been substituted with shoulder strap of a material as that of the blouse sewn on the outer extremity of the shoulder with the inner end fastened with a small regulation button in the same way as that of Army officers.

Chiefs of Divisions, Hospitals and Offices and Medical Officers in charge of Sanitations, are directed to see that the medical and sanitary personnel of the service wear the uniform and same are neat and correctly worn. Medical Officers in Charge of Health Stations, City of Manila, shall do regular review every Saturday. District Inspectors when on inspection within their districts should make similar inspections of all personnel as to their uniforms and shall render report to the Director of Health thereon. Attention is invited in this connection to para-

graph 22 of the Service Uniform Regulations. The reports required therein should be submitted.

Any Medical Officer or sanitary personnel required to wear uniform will be subject to disciplinary action when found with dirty uniform on, or not wearing it at all without proper permission.

V. JESUS  
*Director of Health*

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